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THE TRANSMISSION OF TELEGRAMS

HEARINGS

BEFORE THE

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

HOUSE OF REPRESENTATIVES

SIXTY-SECOND CONGRESS, SECOND SESSION

H. R. 3010

MAY 24, 1912

WASHINGTON
GOVERNMENT PRINTING OFFICE
1912

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE.

House of Representatives, Sixty-Second Congress.

WILLIAM C. ADAMSON, Georgia, *Chairman.*

WILLIAM RICHARDSON, Alabama.
THETUS W. SIMS, Tennessee.
WILLIAM R. SMITH, Texas.
ROBERT F. BROUSSARD, Louisiana.
HENRY M. GOLDFOGLE, New York.
COURTNEY W. HAMLIN, Missouri.
ADOLPH J. SABATH, Illinois.
JOHN A. MARTIN, Colorado.
J. HARRY COVINGTON, Maryland.
WILLIAM A. CULLOP, Indiana.
SAMUEL W. GOULD, Maine.
FRANK E. DOREMUS, Michigan.
J. H. GOEKE, Ohio.
FREDERICK C. STEVENS, Minnesota.
JOHN J. ESCH, Wisconsin.
JOSEPH R. KNOWLAND, California.
WILLIAM M. CALDER, New York.
EDWARD L. HAMILTON, Michigan.
MICHAEL E. DRISCOLL, New York.
EBEN W. MARTIN, South Dakota.

Willis J. Davis, *Clerk.*

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TRANSMISSION OF TELEGRAMS.

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
HOUSE OF REPRESENTATIVES,
Friday, May 24, 1912.

The committee was called to order at 11 o'clock a. m., Hon. William C. Adamson (chairman) presiding.

Present with the committee: Hon. William J. Cary, a Representative from Wisconsin; Mr. S. J. Konemkamp, international president Commercial Telegraphers' Union, of Chicago; and Mr. Herman J. Schulteis, organizer and general counsel of the Commercial Telegraphers' Union, appearing in behalf of H. R. 3010.

The CHAIRMAN. Gentlemen, I have taken the liberty to tell Brother Cary, who is a Member of Congress and has a right to appear before the committee whenever he wants to, that he could be heard to-day. There may be two sets of men who will want to be heard, and in order to be entirely fair, if the other side desires, we should give them an opportunity to be heard.

STATEMENT OF HON. WILLIAM J. CARY, A MEMBER IN CONGRESS FROM THE STATE OF WISCONSIN.

Mr. CARY. Mr. Chairman and gentlemen of the committee, I desire to speak to you with reference to H. R. 3010, introduced by me on April 10, 1911. I have introduced this bill each Congress since I have been a Member of the House. We had one hearing a couple of years ago before this committee, but have not had any since. Your chairman was kind enough to permit this hearing to-day, and I am not going to take much of the committee's time.

In short, this bill applies to the placing of the filing time on telegrams, so that it would be possible to follow up telegrams by the filing time. This would enable the person at the delivery point, where he received a telegram, to know exactly how long it took a telegram to reach him.

There are times in the telegraph business when two telegrams might be sent, and perhaps the last telegram would get to you first and that would be the one that would do the damage or the harm.

Mr. GOLDFOGLE. How would that condition come about?

Mr. CARY. By a delay or mix up of some kind or other in the telegraph business. It may be wire trouble, or perhaps a thousand messages would pile up to be sent on three wires, or something of that kind, to be handled, probably, in the busy hours.

Mr. SIMS. You mean the filing time in the office; not the transmission time?

Mr. CARY. The filing time. For instance, when you take a telegram into the office they put the time down when the message came over the counter. That filing time should be put on the message.

Mr. ESCH. It should be put on the message?

Mr. CARY. It should be put on the message. At the receiving point they always put down the receiving time. Then, when a message is delivered to you, you could discover how long a time it took to get to you, and it might save you a wild-goose chase on a railroad of a thousand miles and hundreds, yes, and thousands of dollars, in a business transaction. To-day we have no way of knowing how long it takes a telegram to be transmitted, and if we receive two telegrams on the same subject we do not know which one was sent first.

Mr. KNOWLAND. This would require a little more time in the sending?

Mr. CARY. Yes. It would require two or three more letters. The telegraph companies claimed before that it would take seven words.

Mr. STEVENS. Is it not placed on the railroad telegrams now?

Mr. CARY. It is placed on the railroad telegrams, and in England the time is placed on by letters; but the Western Union and Postal Telegraph Co.'s do not.

Mr. SIMS. They send the day, but not the hour.

Mr. CARY. Yes, they send the day, but not the hour. All other countries of the world send the filing time but this country.

Mr. HAMLIN. It would also, Mr. Cary, compel them to hurry up the service.

Mr. CARY. It would give the people better service; sure, but it would require a few more men to give the right kind of service. The public is paying for this service, and it is entitled to it. In the case of two telegrams being sent, I know of an instance where it cost a man $10,000 by executing the second telegram and not getting the first. He got two telegrams at the same time, and did not know which one was sent first; but had the filing time been on those telegrams, he would have known which one left the originating point first.

As far as the extra work which would be required, the blanks are printed. This is on the sending blanks to-day: Here is the filing time [indicating]. That is for the benefit of the company. They do not forward that. When the public receive a telegram, the receiving time is put on by the operator. He looks over at the clock, and puts on the receiving time while the message is coming over the wire.

Mr. KNOWLAND. Of course, there are so many night wires and day wires nowadays, but with the night wire most of the messages come now in a night letter.

Mr. CARY. I think that the filing time ought to be placed on all telegrams. The letter "M," for instance, would be printed on the receiving blanks, so that would not have to go over the wire. I will show you: 1–P or 1–A, that is all that would have to go over the wire. That would mean 1 p. m. or 1 a. m. The "M" does not have to go over the wire. It is printed on the blanks, so the operator just puts "1–A" or "1–P" on the blanks. That is the lowest they would have to send. The highest they would have to send would be 12.30–P or 12.30–A; that is the highest number of figures. It is just a word. In other words, five letters is about the average word. 10.30–A or 10.30–P would be one word and the average would be less than half a word, because 1–P are only two units and 12.30–P would be five.

Mr. JOHN A. MARTIN. They indicate the figures by a letter each?

Mr. CARY. They send each figure by itself.

Mr. HAMLIN. They do not spell out figures?

Mr. CARY. No; they do not spell them out; they just simply send figures and letters. It would just take about this long to send 1-P [illustrating]; 12.30 p. m. would be just about this long [illustrating].

Mr. JOHN A. MARTIN. If you will permit me, right there, I would like to call attention to a recent experience I had: Not very long ago a brother-in-law of mine died very suddenly and I was wired to that effect. I did not receive the telegram until the afternoon of the next day. It was not received that day, but the delivery office undoubtedly changed the date. They dated it the day that I got the message, although he had died the day before and they sent the telegram the day before.

Mr. KNOWLAND. Was it a night letter?

Mr. JOHN A. MARTIN. No; a day telegram. Of course I complained about it, and they went and got the message, and it was dated the day after the telegram was sent.

Here is the telegram: "Cripple Creek, Colo., 1.54 P" on the bottom. That shows when it was received; but you can't tell from anything on there as to when it was sent.

Mr. CARY. Not a thing. The operator also might make a mistake in the dates, and it might deceive you and fool you in that way also.

The CHAIRMAN. Do the telegraph companies object to this amendment?

Mr. CARY. They did the last time it was up, and I believe they will again.

Mr. GOLDFOGLE. What is the ground of their objection?

Mr. CARY. They claimed it would be necessary to send 7 more words over the wire, and they simply multiplied that by 10,000,000 messages, I guess, and figured how many extra operators they would have to have, and so forth.

Mr. GOLDFOGLE. That is the only objection they have?

Mr. CARY. That is the only objection they have.

The CHAIRMAN. They have now admitted away that objection by adopting the night-letter system.

Mr. CARY. That, perhaps, is an acknowledgment that we are right.

Mr. ESCH. Mr. Cary, do you remember the testimony of four years ago, to the effect that in periods of congestion in large offices hundreds of telegrams would be sent by mail; do you know whether that practice is continuing to-day?

Mr. CARY. I have not been in the telegraph business since 1904, but during the period, say, from 1883 to 1895, I saw it done many times. Not alone that, but as I stated before, there are times when thousands of telegrams pile up, and it may be that they will have to be taken care of on three wires by three men. Those men can not handle more than 40 messages an hour, and handle them properly, and you can realize the delay in sending that number of messages.

The CHAIRMAN. Mr. Cary, in deference to the healthy and growing disposition to acquire and cultivate a more intimate acquaintance with the constituent personnel of our corporate public servants, I think it would be valuable if you know or could refer to anybody who does know and can tell us who are the telegraph companies now and the different companies that own them.

Mr. CARY. I think perhaps my friend Mr. Schulteis will be able to tell you. I do not know, but he is more familiar with them than I am, and he would like to be heard for a couple of minutes.

Mr. KNOWLAND. During the San Francisco disaster, thousands and thousands of telegrams were accepted and the money paid, and they were mailed to San Francisco.

Mr. GOLDFOGLE. Mailed from where?

Mr. KNOWLAND. From here. They accepted the money for telegraphing the messages, but they were not placed over the wire.

The CHAIRMAN. They did not furnish the accommodation, although they accepted the money for the same?

Mr. CARY. Yes. I do not want to say it is true, but I say I imagine a great deal of that is being done to-day. Now, all there is to this filing time is exactly as I have pictured it to you here.

There is another feature of the bill, asking that the original copy be kept at the originating point at least six months, and that a copy be kept at the delivering point for the same period. That is done for the purpose of protecting the public. There is nothing now to prevent them from destroying the message the day after it is received. There is no law that compels them to keep it over 24 hours, or even to keep it an hour after it is sent over the wire. While they do keep these in some of the offices for a year (in the little offices), in the larger offices they claim that for the want of space they can not afford to have them pile up, and so forth; but that is provided for in this bill.

Mr. GOLDFOGLE. There is an absolute proviso?

Mr. CARY. Oh, yes. It is essential that they should be kept on file, in case there be a lawsuit, and the telegram itself is necessary. Suppose that telegram was destroyed; that might be the vital thing.

Mr. SIMS. Mr. Cary, have boards of trade and business men's associations throughout the country indorsed this bill, or the idea?

Mr. CARY. They have indorsed it at different times.

Mr. SIMS. They have taken action and have been before the committee in former hearings?

Mr. CARY. Yes. I have the papers over in my office. They are from business men's associations and boards of trade all over the country, and the National Grain Dealers' Association in their convention also gave their indorsement to it. Traveling men have indorsed it, because they see it would be a great saving of time and trouble to them while on the road.

Mr. ESCH. What is the effect of these multiplex systems that are now being established, where many messages may be transmitted simultaneously over the same wire?

Mr. CARY. By using the duplex and quadruplex—in the latter case you make one wire do the work of four, and in the former one wire does the work of two.

Mr. ESCH. That prevents congestion and permits the speedy transmission of messages, so that excuse would not obtain now as much as it formerly did.

Mr. CARY. It relieves congestion on the wires; but still they will need operators there to send messages over the wires. If they do not man the wires, the messages would pile up just the same.

Mr. HAMILTON. I see that section 3 requires the messages to be delivered to the addressee within certain specified times.

Mr. CARY. That, I think, is proper.

Mr. SABATH. It is, for this reason, is it not: A great many of these messages are not delivered at all; they are merely telephoned or mailed to the house. That has been the practice in the city of Chicago for the last two or three years. Instead of delivering the message, they telephone it. Frequently the person is not at home to receive the telephone message, and some one in the house who does not know anything about the contents of the message will take down the message, and may leave out one word, or will not understand it over the telephone (just the meaning of some word there), and when you get home there is a memorandum of a telegram for you, and it reads as follows, and frequently, you do not know what that telegram means.

Mr. CARY. I will say, Mr. Chairman and gentlemen of the committee, that I remember when I was a young boy, the old Atlantic & Pacific, the Great Western and Northwestern Telegraph Co.'s sent the filing time when they used the tape system. After a while they dropped it. As I said before, every country in the world except this country uses this system of following up a message by the filing time. It is simple, and it is clearly apparent that you would get better service and the people would be protected to a great extent if the filing time was placed on the telegram.

The CHAIRMAN. The reason I asked you about the position of the companies is that none of them are here, and I deem it fair, should they want a hearing, that they should be notified. I do not know where to send the notice to them, but I suppose we can rely upon the viligent press for getting the notice to them.

Mr. CARY. They will be here on a special train just as soon as they hear of this meeting. The fact is, Mr. Chairman, I can tell you everything they would have to say.

The CHAIRMAN. I suppose it would be better to let them tell it themselves.

Mr. CARY. Yes, I think that would be better.

Mr. CARY. I do not wish to take up any more time of the committee, but would like to extend my remarks in the printed hearings, as there are a few more things I would like to bring out.

The CHAIRMAN. There is no objection, and the committee will be glad to get the additional information.

Mr. CARY. The earliest record of the transmission of an electric fluid to any distance carries us back to 1727, when Stephen Gray, in London, succeeded in the transmission of electricity 700 feet. Repeated experiments were carried on throughout the world, but science acknowledges that to Samuel F. B. Morse belongs the credit of being the first inventor of transmitting messages at a distance by means of electromagnetism. In 1844 the first telegraphic system was established between Washington and Baltimore. Telegraph lines immediately were built throughout America and Europe.

In the international telegraph treaty, concluded and signed in Paris May 17, 1865, between France, Austria, Baden, Bavaria, Greece, the free city of Hamburg, Hanover, Italy, Holland, Portugal, Prussia, Saxony, Sweden and Norway, Switzerland, Turkey, and Wurttemberg, Section II, Application of Tariffs, paragraph 35 provided that "the name of the departure station, the date, the hour, and the minute of deposit are transmitted gratuitously to the receiver."

In the international telegraph treaty between Germany and Russia, signed at St. Petersburg July 22, 1875, as it stands revised to-day, is a provision that "the name of the sender, the telegraph number, the date, and the hour of its transmission and the name and address of the receiver shall be transmitted free. (See p. 18 of the treaty, Sec. XVIII, par. 2.)

Without giving further examples, it may be stated that the filing time is required in practically every country, the United States being the one exception.

And it is easy to understand the reason for this condition here in our own country. As with many of our large industries, as soon as the market for a particular product is controlled by a small group of persons, the public is inexcusably neglected, so also does this condition of affairs exist with respect to the telegraph. The public should not be obliged to tolerate it, especially with public-service corporations such as the telegraph, carrying on interstate commerce and coming within the province and jurisdiction of Congress for regulation.

It was very encouraging that at the last Congress the authority of the Interstate Commerce Commission was expanded by bringing the telegraph and telephone companies within their control, for it was a step in the right direction.

The filing-time measure is an important one to the public generally and for many reasons. In the first place, the public is entitled to this additional service free, because the rates charged by the companies are sufficient to warrant the slight additional expense the commany might incur from it. The date could be expressed by the month and day of the month in figures and the time likewise, thus requiring but enough extra symbols for a signle word of nine letters at the most, thus: 10 17 A 11 23, denoting October 17, 11.23 a. m.

The telegraph is analagous to the postal service, except that quicker transmission of messages is insured if handled properly. Each letter we mail contains on the face of the envelope the post office at which it was mailed, the date, and the time of its receipt at the post office. Does it not logically follow that the telegraph companies ought to give the recipient of the message the same information as the addressee of a letter receives?

No other proposition would, in my opinion, so increase the efficiency and the promptness of sending messages as the measure I am speaking for.

It has often happened that a message announcing the death of some dear relative or friend has been unnecessarily delayed and the recipient thereby prevented from attending the funeral which caused great mortification and mental depression, which in turn caused physical injury. A suit is brought against the company for damages and it is readily apparent if the filing time were indicated, it would not be so difficult to prove unreasonable delay and negligence on the part of the company.

It certainly would insure on the part of the company and its employees a greater amount of diligence and greater efforts to carry out the real intent of the telegraph by prompt service.

Suppose a person left a telegram at a telegraph office advising his agent in another city to close certain negotiations. A short while afterwards, desiring to cancel these orders, he sends another telegram

from another office. The one he sends last reaches its destination first. The other party is at a loss to know what to do. If the filing time were indicated on each, this difficulty would be obviated.

Business men often encounter like difficulties. If a man has an option on certain goods or property which closes at a certain hour and he waits until very near the limit of his time to telegraph, the filing time indicated on the message would be sufficient proof to the man at the other end of the wire that the terms of the contract as to time had been complied with, and thus much litigation, consuming a great deal of the time of our courts, would be avoided.

So long as the filing time is not sent with the telegram the receiver has no knowledge how long the telegram has been delayed. This gives the company the opportunity to hold back business for hours if it suits their convenience to do so, and the company usually finds it more convenient to do this than to employ a force of operators sufficiently large to work off the business promptly.

Let me cite in this connection a single case where delay in forwarding a telegram resulted in great embarrassment and humiliation to a worthy family in my home city of Milwaukee. The facts were printed in the Evening Wisconsin on October 16 of last year, and the article is herewith reproduced, headlines and all:

GETS DAMAGE FOR DELAYED TELEGRAM—JEWISH LAW AND CHARITY BURIAL EMBARRASS WESTERN UNION—CHARLES SCHNEIDER SUES—JURY HOLDS PROMPT DELIVERY OF MESSAGE WOULD HAVE PREVENTED ALL CONFUSION—VERDICT $115.25.

A jury in the court of Civil Judge J. G. Donnelly to-day returned a verdict of $115.25 for the plaintiff in the $500 damage suit of Charles Schneider against the Western Union Telegraph Co.

Schneider demanded the damages because the telegraph company delayed delivery of a telegram to his sister, Mrs. Martha Cohen, Cleveland. As a result of the delay Mrs. Cohen's husband, who had died, was buried at the expense of Jewish societies, Mrs. Cohen being herself unable to provide burial.

The Jewish law is that a Jew must be buried not later than one day after death unless relatives are on the way to attend the funeral. Schneider's telegram to his sister, Mrs. Cohen, notified her that he was on the way to attend the funeral. The jury found that the telegram should have been delivered in plenty of time to stop the funeral and that the blame for the delay fell entirely on the company. The Jewish law does not permit disinterment.

Schneider has about $5,000 a year income and had helped his sister and brother-in-law considerably. He said he stood ready to give his brother-in-law more than an ordinary burial, such as one gets when a charitable society has to foot the bill.

Mrs. Cohen also is suing the company. She wants $2,000.

I wish, also, to append hereto a letter and affidavit of William F. Hooker, a constituent of mine and a resident of Milwaukee, formerly tax commissioner of that city:

OFFICE OF THE TAX COMMISSIONER,
Milwaukee, February 6, 1908.

Hon. WM. J. CARY,
House of Representatives, Washington, D. C.

MY DEAR CARY: In response to your request I am sending you attached herewith affidavit covering the circumstances relating to Jaquet telegrams, applying only to the facts at this end of the line.

I sincerely hope that you will meet with success in your efforts to secure proper regulation of these matters. My experience was very annoying.

Regards to Mr. Lane.

Very truly, yours, W. F. HOOKER.

FEBRUARY 6, 1908.

MILWAUKEE, WIS.,
County of Milwaukee, ss:

To whom it may concern: I, William F. Hooker, tax commissioner of the city of Milwaukee, county of Milwaukee, State of Wisconsin, being first duly sworn, make oath as follows:

On January 15, 1908, at about the hour of 11 o'clock a. m., I sent from my office in care of a messenger employed by the Western Union Telegraph Co. a telegram addressed to Mr. Jules Jaquet, Hyattsville, Md., apprising him of the condition of his wife (affiant's sister), who had about an hour before undergone a surgical operation; that said wife of said Jaquet (affiant's sister) had previous to said operation particularly charged this affiant with the duty of thus telegraphing said Jaquet as soon after said operation as possible, informing him of her condition, said Jaquet being in a more or less anxious state of mind as to results of said operation.

Affiant further says on oath, to the best of his recollection, that on January 16, 1908, he also sent another telegram, informing said Jaquet of his wife's (affiant's sister's) condition.

Affiant further says on oath that he was later informed by officials and employees of said Western Union Telegraph Co. in this city that both of said telegrams had been duly and properly delivered to said Jaquet at Hyattsville, Md., and that said Jaquet had duly receipted for said telegrams, and that said telegrams had been delivered promptly upon the days they were received.

Affiant further makes oath that said wife of Jaquet (affiant's sister) as a result of said delay suffered such annoyance and disturbance of her peace of mind as to in a considerable manner interfere with her recovery, causing her to the best of affiant's knowledge and belief to become greatly excited and nervous.

Affiant further makes oath that both of said messages were paid for at the rate of 50 cents each by said affiant.

Subscribed and sworn to this 6th day of February, A. D. 1908.

W. F. HOOKER.

STATE OF WISCONSIN, *County of Milwaukee, ss:*

Personally came before me this 6th day of February, 1908, the above-named William F. Hooker, to me known to be the person who executed the foregoing instrument, and acknowledged the same.

[SEAL.] JOHN H. LEENHOUTS,
Notary Public, Milwaukee County, Wis.

My commission expires April 5, 1908.

STATEMENT OF MR. S. J. KONENKAMP, INTERNATIONAL PRESIDENT COMMERCIAL TELEGRAPHERS' UNION, CHICAGO, ILL.

Mr. KONENKAMP. Mr. Chairman and gentlemen, we have advocated such a measure as this, believing it would be advantageous to the general public. There are no persons who are better acquainted with the abuses of the telegraph business than the telegraph operators. I presume they have had all the variety of experience that a person would have in connection with the telegraph business, and it is practically the unanimous opinion of all those who are connected with the business that the filing time would save a great many abuses, at least, and would probably give better service throughout.

We have gone into the matter to a considerable extent, and made inquiry of the different countries of Europe as to the customs there, and have found that this is the only nation in the world, so far as we have been able to learn, where the filing time is not carried in the message. In England they use a dial system whereby the objection raised by the telegraph companies is completely obviated, because with a very simple system they use letters for transmitting the filing time. The result is that the total number of letters used at any time does not exceed four.

In speaking of this particular phase of the transmission of messages the secretary of the Postal Clerks' Union in London made the remark

that they had no distinction between a. m. and p. m. in England, because it is inconceivable that any message should be delayed in transmission over 12 hours. The Americans, in their experience with the telegraph, believe that it is conceivable that a message should be delayed more than 12 hours.

The CHAIRMAN. The victims find it out.

Mr. KONENKAMP. Undoubtedly. Therefore there could be no better recommendation for the filing time than the statement made by an Englishman, that where it is in use a delay of over 12 hours in a message is something that is inconceivable. If the filing time will bring about such a condition as that, or even if it would reduce the delay to less than 12 hours, I think it highly desirable to have it in this country.

Mr. JOHN A. MARTIN. I have received night lettergrams at 3 or 4 o'clock in the afternoon that I ought to have received in the morning.

Mr. KNOWLAND. How many extra men would this require?

Mr. KONENKAMP. None at all, I should say.

Mr. KNOWLAND. Your union takes the position that it would be for the good of the public?

Mr. KONENKAMP. They take the position that it is for the good of the public.

Mr. JOHN A. MARTIN. In what way would it benefit you?

Mr. KONENKAMP. In what way would it benefit us?

Mr. JOHN A. MARTIN. Yes.

Mr. KONENKAMP. Personally I can not say that it is beneficial to the telegraphers at all, although there are a number of our members who think so.

Mr. HAMLIN. You mean the telegraphers?

Mr. KONENKAMP. The telegraphers. I do not see where it would be of any benefit. Some think it would create a demand for more men, but I can not see it myself. Let us take, for instance, an operator handling three or four hundred messages a day. If he carried the filing time on every one of those, at four letters, and supposing that five letters would make a half a word, the aggregate on 400 different messages would not exceed 80 words in the total number of messages.

Mr. SIMS. How much additional time would that be?

Mr. KONENKAMP. Eighty words would take about three minutes.

The CHAIRMAN. Where are your headquarters?

Mr. KONENKAMP. Chicago.

The CHAIRMAN. How long are you going to be in the city here?

Mr. KONENKAMP. I am going away to-night.

The CHAIRMAN. I thought probably the committee would like to hear you on Mr. Martin's bill, which is an amendment to the 13-hour law.

Mr. KONENKAMP. I am going away to-day. We only represent the commercial telegraphers, but I am a railroad telegrapher, and a number of them are in the union.

Mr. HAMLIN. You say that it would not take over three minutes additional time in the average day's work?

Mr. KONENKAMP. In the average day's work, for 80 words. I am not so good on quick calculations, but I figure it out this way: Three hundred messages, with an average of half a word to a message, would be 150 words, say. That would take seven to eight minutes,

because the minimum requirement is about 20 words to a minute for a telegraph operator. However, a man sending at the rate of 400 messages in a day, without counting delay, the speed would be over 40 words a minute, or about that. Therefore, the whole thing would not take over 10 minutes in a day. Therefore, the advantage in that particular is so infinitesimal that I have not been able to see it.

There has been a law in Massachusetts for over two years compelling the companies to carry the filing time, and they carry it now within the State of Massuchusetts, and they have the same law in Maryland, which has been on the statute books of Maryland for four years; but I have heard of no great influx of telegraph operators to either State.

Mr. SIMS. There has been no increase of operators?

Mr. KONENKAMP. No. So I can not see the benefit there. The companies say the cost would be great, but I think if they would put a traffic expert on the job they would be able to reduce it to even a lower minimum than I have spoken of.

Mr. HAMLIN. How are the men paid—on a monthly salary, or the amount of work they do each day? What is the basis of pay?

Mr. KONENKAMP. The wages of telegraph operators range—well, I know of some who receive $6 and $7 a week in New York City.

Mr. HAMLIN. I do not have reference to the amount of money they receive; but what is the basis of pay?

Mr. KONENKAMP. They are all paid by the month or the week; every one of them.

Mr. HAMLIN. And any additional work would not be an increase in the salary?

Mr. KONENKAMP. The only people it would affect are the bonus men in the employ of the Postal Telegraph Co. The Western Union does not use the bonus system.

Mr. DOREMUS. What is the bonus system?

Mr. KONENKAMP. That is a system where the telegrapher is paid for 300 messages a day. That is the general average, and any message he handles over 300 he receives 1 cent a message additional.

Mr. SIMS. In addition to the regular salary?

Mr. KONENKAMP. In addition to the regular salary.

Mr. JOHN A. MARTIN. If they only get a cent a message this increase of a word would not increase it.

Mr. KONENKAMP. It might reduce their earning power.

The CHAIRMAN. If you know who the owners of the telegraph companies are—the stockholders and bondholders and the subsidiary companies—I wish you would put it in your answers when you revise your testimony. It will be sent to you to revise.

Mr. KONENKAMP. All right. I can give you a general idea now.

The CHAIRMAN. I would like to have a reliable statement covering the whole subject.

Mr. KONENKAMP. The Western Union Telegraph Co. is controlled by the American Telephone & Telegraph Co, which is the parent body of all Bell telephone companies in the United States and Canada.

The American Telephone & Telegraph Co. is described in a petition addressed to Attorney General Wickersham and filed by Mr. George Lambert as a monopoly organized on the same general scheme as the Standard Oil and American Tobacco Trusts. In fact, those in charge of this property make no secret of their aim to obtain a complete monopoly of the telegraph and telephone service, or as they term it through one universal system.

Eight subsidiary companies are under its control as follows:

The Pacific Telephone & Telegraph Co., on the Pacific coast, operating through four States.

The Mountain States Telephone & Telegraph Co., with headquarters at Denver, operating in eight States.

The Central Union Telephone Co., in Ohio, Indiana, and Illinois.

The Cumberland Telephone & Telegraph Co., operating in six States.

The Southern Bell Telephone & Telegraph Co., operating in seven States.

The New York Telephone Co., which controls through almost complete ownership the Bell telephone companies of Pennsylvania, New Jersey, New York, Delaware, Maryland, District of Columbia, and a portion of Virginia and West Virginia.

The New England Telephone & Telegraph Co., operating in five States.

The Western Telephone & Telegraph Co., operating in seven States, and understood to control, through a majority of stock, the Southwestern Telephone & Telegraph Co., operating in Texas and adjoining States, as well as the Pioneer Co. in Oklahoma.

These companies in turn own many other Bell companies. Through these corporations or through direct American Telephone & Telegraph control these interests own or control the following telegraph companies:

The Western Union Telegraph Co.

The Great Northwestern Telegraph Co. of Canada.

The Postal Telegraph Co. of Texas.

The Anglo-American Cable Co.

The United States Direct Cable Co., and others.

The cable situation is pretty thoroughly dominated by the control of these two companies, with the Western Union's own cables added.

It is the general belief in telegraph circles that the controlling interest in the American Telephone & Telegraph Co. changed in 1908 and that J. P. Morgan & Co., with their affiliated banking interests in Boston, are the present dominating influences in the telegraph and telephone field. The capitalization of the American Telephone & Telegraph and its subsidiaries is estimated as being larger than that of the United States Steel Corporation, or over $1,000,000,000.

The directors of the American Telegraph & Telephone Co. are: Charles W. Amory, Thomas B. Bailey, George F. Baker, Francis Blake, Harry H. Brigham, Alexander Cochrane, T. Jefferson Coolidge, jr., W. Murray Crane, Henry P. Davison,[1] Rudolph Ellis, Norman W. Harris, Henry L. Higginson, Henry S. Howe,[1] Charles E. Hubbard, Lewis C. Ledyard, John J. Mitchell,[1] William L. Putnam, S. L. Schoonmaker, E. V. R. Thayer, T. N. Vail,[1] Frank E. Warner, John I. Waterbury,[1] Moses Williams, Robert Winsor.[1]

The directors of the Western Union Telegraph Co. are: Oliver Ames, U. N. Bethell,[1] Henry A. Bishop, Robert C. Clowry, Henry P. Davison,[1] Chauncey M. Depew, Harris C. Fahnestock, Henry M. Flagler, Robert M. Gallaway, Edwin Gould, George J. Gould, Edward J. Hall,[1] Henry S. Howe,[1] Thomas H. Hubbard, Edward T. Jeffery, Charles Lanier, Robert S. Lovett, John J. Mitchell,[1] William M. Moore, J. Pierpont Morgan, Jacob H. Schiff, Joseph J. Slocum, James Still-

[1] Directors of both companies or are among the general officers of one and directors of the other.

man, Harry B. Thayer,[1] T. N. Vail,[1] Henry Walters, John I. Waterbury,[1] John C. Willever, Robert Winsor.[1]

The Postal Telegraph Cable Co. does not appear to be a part of the telegraph-telephone combination. It is owned in its entirety by the Mackay companies, which also owns the Commercial Cable Co., the Mackay Telegraph & Telephone Co., the Texas Telegraph Co., and is supposed to control the North American Telegraph Co. A few years ago statements were given out by the Mackay companies to the effect that they were holders of stock in over 100 telegraph and telephone companies.

The Mackay companies is not incorporated and is under the management of seven trustees, viz, Clarence H. Mackay, William W. Cook, George G. Ward, Edward C. Platt, M. W. Blackmar, of New York; R. A. Smith, of Toronto; and H. Vincent Meredith, of Montreal. A large amount of the stock is supposed to be held in Toronto and Montreal.

The Mackay companies have been making alliances with so-called independents in the telephone field wherever possible, but inasmuch as J. P. Morgan & Co. are believed to be an important factor in the independent field through control of certain companies in Ohio and Indiana and the American Telegraph & Telephone has also been making inroads on the independent properties of the Pacific coast, the Postal interests are said to be having a hard time in this fight

The Western Union and Postal interests are fighting each other for business at all points, but they seem to be able to maintain a mutual understanding that union men are to be blacklisted by both companies.

STATEMENT OF MR. HERMAN J. SCHULTEIS, ORGANIZER AND GENERAL COUNSEL FOR THE COMMERCIAL TELEGRAPHERS' UNION.

Mr. SCHULTEIS. I want to add just this one thing, in reference to whether the companies would have to employ more men or not. Our national president, Mr. Konenkamp, said this filing-time bill probably would not increase the number of employees. Now, I believe it would effect a very slight increase in the large offices. Wherever they have a habit of hanging a great number of messages on the hook and allow them to stay there so one man can do the work instead of two, it would mean an increase by one or two men in a few of the larger offices in the great cities; but that ought to be done and the general public is entitled to have it done.

The CHAIRMAN. If all the work that ordinarily comes in during six hours should happen to come in during one hour, they would just let the messages lay over and one man would take the six hours if necessary to do it.

Mr. SCHULTEIS. That is the idea. This filing-time requirement would prevent to a large extent this habit of hanging the messages on a hook and letting them stay there a number of hours, so that one man can send the whole batch, instead of putting on an extra man in the offices of a few of the great cities. It would not mean, however, a one-hundredth part of the actual additional cost that has been stated at a former hearing.

[1] Directors of both companies or are among the general officers of one and directors of the other.

As has been said, they frequently send messages by mail. They put a 2-cent stamp on them, when perhaps they have charged $1.75 for transmitting it by wire. They have no complaint coming. They never return the difference—$1.73—to the unsuspecting sender of the message.

Aside from that, I wish to say to this committee that the companies have increased their stock and watered it to eight times its actual physical value. I can produce an expert witness to testify before this committee that the stock of the Western Union has been increased to that extent. There is enough water in the telephone stocks to float a battleship.

The CHAIRMAN. When you revise your testimony, will you attach a statement covering that and also a statement covering all the stockholders and bondholders and the dominating companies.

Mr. SCHULTEIS. I will; and it will sift down to one man who, without owning a majority of the stock, yet controls the entire system—not only the telegraph but the telephone—J. Pierpont Morgan. He has purchased $40,000,000 worth of telephone stock in the last six or eight months and he is now trying to get control of the wireless telegraph as well.

Mr. JOHN A. MARTIN. Is that the same Morgan who owns all the railroads, ships, banks, and things like that?

Mr. SCHULTEIS. There are very few things of value around loose that he does not have an interest in. His agents or dummies are members of the boards of directors of nearly all the great predatory trusts, including the United States Steel Corporation. I have had some experience in following up that matter during the last 10 years. I had the honor to open the hearings before the Committee on Rules, which brought about the Stanley Steel Trust investigation, and so far everything charged before that committee has been proven, and the reduction in the price of steel will save millions annually to the American people in consequence of that investigation.

I thank you very much, Mr. Chairman and gentlemen, for this hearing. I will not detain you any longer, because this is such a just bill in the interest of the general public and it is such a modest request that it can not in reason be denied. It adds only one code word to each message to give the time when the message was filed. The public is entitled to it.

Since the hearings on the bill four years ago we have eliminated every objectionable feature, and if the companies come here and object to this bill we would be very glad to have another hearing. This bill is purely in the interests of the people of the United States, and it ought to be reported favorably, so as to come before the House and be acted upon during the present session.

In response to the suggestion of the chairman that I attach a statement covering the various stock-watering operations of the telegraph companies which happened during the absorption of the various independent companies benevolently assimilated by this great monopoly, I will ask that Prof. Parson's monograph on "The Telegraph Monopoly," which covers the whole subject matter, be printed as part of my remarks; also the last annual report of the directors of the American Telephone & Telegraph Co. to the stockholders, which brings their plant additions down to January 1, 1912; with diagrams of the Western Union system and the Bell and Western Union system which

are now under one control. The companies' own report gives tables showing comparative statements of earnings and expenses which are in themselves an unanswerable argument in favor of the passage of this bill and point out the absolute necessity of the governmental inquiry into the physical valuation of telephones and telegraphs before proper regulation, rate making, Government ownership, or control can obtain. A complete list of directors and stock and bond holders can be found in Moody's and Poor's Manuals, respectively, so I need not incorporate them here.

The Telegraph Monopoly.

Private monopoly in industry is contrary to public good.

Management of the means of communication for private profit is specially pernicious.

With the telegraph, as with the streets, the roads, and the post, the aim should not be profit, but service. This true aim is attained only in Government systems.

The public good demands public ownership of the telegraph.

Economy, justice, good government, welfare of employees, liberty of the press, diffusion of wealth, and democracy urge the same plea.

Eminent statesmen and leading committees of House and Senate have declared it to be the duty of Congress, under the Constitution to use the telegraph as part of the postal system for transmitting the people's correspondence.

Public sentiment overwhelmingly favors the plan. Henry Clay, Charles Sumner, Gen. Grant, Morse the inventor, James Russell Lowell, Phillips Brooks, Francis A. Walker, John Wanamaker, Lyman Abbott, Richard T. Ely, Henry D. Lloyd, Judge Clark of supreme bench of North Carolina, Justice Brown of the United States Supreme Court, and many other men and women of the highest character have advocated the measure or expressed sympathy with it. Only the telegraph monopolists oppose it.

The Constitution confides the carrying of intelligence to the Federal Government. It is the duty of an agent to use the best means for the accomplishment of the work intrusted to him. It is, therefore, the positive duty of Congress to provide for the use of the telegraph as part of the postal service.

Preface.

Hon. John Wanamaker, as Postmaster General, did vigorous work in behalf of a postal telegraph in 1890 and 1892. The interest roused by his efforts did not cease when he left the Cabinet. In 1894 the International Typographical Union strongly urged the subject upon Congress. In 1895 Mr. B. O. Flower, the editor and founder of The Arena, arranged for a symposium on the telegraph question, asking Prof. Richard T. Ely, of Johns Hopkins and Wisconsin Universities; Judge Walter Clark, of the Supreme Court of North Carolina, Postmaster General Wilson, Rev. Dr. Lyman Abbott, and the present writer to prepare papers. The symposium appeared in December, 1895, and January, 1896, and the nationalization of the telegraph was earnestly advocated by all the writers named except Mr. Wilson. In writing my own paper I found a vast amount of material hidden away in the records of congressional investigations and in foreign reports which, analyzed and condensed, yielded a mass of facts of great interest and importance with which the public was not acquainted, and which, arranged in order and freed from unnecessary verbiage, constituted a seemingly irresistible argument for public ownership and operation of the telegraph. I acquainted Mr. Flower with the results of my analyses and showed him some of the nuggets I had found in the congressional mines, and he told me to go on digging; he would take all the metal I would dig up, melt, and mold into attractive and orderly form. After three articles were published Senator Marion Butler had them reprinted, with two articles by Judge Clark, as Senate Document 205, Fifty-fourth Congress, first session. Afterwards the Senator wrote several times, asking for the whole series as soon as complete, and finally, at his request, I withdrew the manuscript of the last three articles from The Arena and the Senate printed the whole as Senate Document 65, Sixty-sixth Congress, first session, containing 14 articles as they appeared in The Arena and 3 more dealing with objections.

As the chapters came out in The Arena they were widely copied, many times being reprinted entire by the press in various parts of the country, and numberless requests were made that the whole discussion should be issued in book form. Under my

agreement with The Arena this was to be done by The Arena book press, but the discontinuance of the book department prevented the fulfillment of the contract. The present issue as part of the Equity Series offers the matter for the first time in permanent form, and is, besides, much more than a reprint, the whole discussion having been carefully revised, much of it rewritten, and the data brought down to date wherever the clearness, force, or accuracy of the treatment seemed to require it. The chapter on the English telegraph has been specially enriched, and several other chapters have been very materially improved.

FRANK PARSONS.

BOSTON.

Outside of America 95 per cent of the world's telegraphs are in government hands.

England tried private telegraph companies for a quarter of a century; found the system productive of high charges, poor service, and congestion of facilities, rendering the telegraph of little use to the common people as compared with countries having public telegraphs. She therefore changed to government ownership, and after 30 years' experience with it finds it in every way greatly superior to the private system, especially in cheapness, efficiency, and general usefulness to the community. Thus a fair trial of both plans in the same country (a country very like our own in government, racial character, industrial, and social conditions, etc.) has demonstrated the superiority of the public system. (See Ch. X.)

CHAPTER I.—THE PLAINTIFF'S BRIEF.

GENERAL SITUATION—MOVEMENT FOR POSTAL TELEGRAPH—INVESTIGATIONS—DUTY OF CONGRESS.

Uncle Sam's letters go on foot, on horseback, in wagons, stages, steamboats, railway cars, and pneumatic tubes, but the telegraph wire he can not have, for that is sacred to Wall Street. The "common people" may use foot power, horsepower, steam power, and wind power, but electricity, the best and swiftest of all, is reserved for the use of monopoly and those who can pay its extravagant rates.

It is perfectly natural that Wall Street should wish to keep the telegraph in its own control, for it plays an important part in the processes by which Wall Street gains possession every year of many millions of the wealth created by the "common people." It is equally natural for the people to wish that the transmission of their messages and in fact all their business should be performed in the best possible manner, by the most effective means, and with the most approved and advantageous methods. It is also natural that they should wish to reduce the power of monopoly and check the flow of their wealth into Wall Street.

The people want good service and low rates; the companies want dividends. The people wish to own the telegraph so that it may be managed in their interest. The companies do not care to divide the control or the profits; they prefer to keep the power and the profit for themselves. They do not believe in partnership. It is very much easier to make millionaires with a telegraph owned by a few individuals than it would be with a telegraph owned by the people. The post office doesn't make millionaires; the signal service is not a millionaire mill, nor the Army, nor the Navy, nor the Department of Agriculture, nor the census, nor the public schools. When Uncle Sam administers a business he does it at cost, or if there is a profit he divides it among all the seventy-odd million partners he works for—the stockholders in this big corporation we call our country. This big corporation created the telegraph franchise and gave it all the value it possesses. It has generously allowed the little corporation to use that franchise free of rent for many years to the incalculable profit of the latter. Now the big corporation wants to use the telegraph in its post office, but the little corporation in Wall Street says no.

This conflict of interests has produced a long and earnest discussion of the question whether or no the people shall be permitted to use the electric current in the transaction of their postal business. Books, pamphlets, bills, speeches, arguments, investigations, and resolves have appeared in single file and in battalions until the literature of the subject makes of itself a very respectable library. And still this great case of The People *v.* Monopoly, which for 50 years and more has been on trial in the halls of Congress and on appeal to the supreme court of public opinion, remains upon the docket. During this half century of litigation the case has come to trial in nearly every nation on the globe, and in almost all of them judgment has been rendered for

the people. Outside of the United States and Canada 95 per cent of the world's telegraphs are in government hands. Even Canada owns some commercial lines,[1] and aside from our snowbound neighbor, statistics from 75 of the principal nations of the world show that the Government owns and operates the telegraph in all except Bolivia, Cuba, Cyprus, Hawaii, Honduras, and the United States.[2]

How do you like the company, Uncle Sam? China is the only country in the world that allows the post office to be conducted by private parties, and Canada and the United States are the only countries of consequence that permit the telegraph to be so conducted. France, Germany, Russia, Sweden, Norway, Denmark, Switzerland, and many other nations built their own lines at the start. In Belgium and in the Netherlands some of the early lines were built by the Government and some by private enterprise. The Government lines were the most satisfactory, and the public system was rapidly extended both by direct construction and by the purchase of private lines.[3] In England the telegraph was originally in private hands, but a three years' active campaign gave the people an easy victory.[4]

In America more than 50 years of effort and appeal have failed to win the postal telegraph. Henry Clay, Charles Sumner, Hannibal Hamlin, Gen. Grant, Senators Edmunds, Dawes, Chandler, Marion Butler, Congressmen N. P. Hill, Gen. B. F. Butler, John Davis, Postmaster Generals Johnson, Randall, Maynard, Howe, Creswell, and Wanamaker, Justice Brown, of the United States Supreme Court; Prof. Morse, the inventor of the telegraph; Cyrus W. Field, the founder of the Atlantic cable and a director in the Western Union Co.; James Gordon Bennett, Prof. Richard T. Ely, Rev. Lyman Abbott, B. O. Flower, Judge Clark, Henry D. Lloyd, Dr. C. F. Taylor, T. V. Powderly, Samuel Gompers, and a host of other eminent men in every walk of life have championed the cause of the people.[5] Legislatures, city councils, boards of trade, chambers of commerce, and labor organizations representing many millions of citizens have joined in the effort to secure a national telegraph. The New York Herald, Boston Globe, Philadelphia Times, Chicago Tribune, Albany Express, Washington Gazette, Omaha Bee, Denver Republican, San Francisco Post, New Orleans Times-Democrat, and a multitude of other papers representing every phase of political opinion, have earnestly advocated the measure. Two political parties have definitely demanded a Government telegraph; more than 2,000,000 men by vote and petition have asked for it.[6]

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[1] And there is a strong sentiment favorable to public ownership of the whole telegraph and telephone system. The mayor of Toronto is vigorously pushing the matter. The council has unanimously adopted a resolution requesting the Canadian Parliament to authorize the postmaster general to acquire all telegraph and telephone systems and operate them as part of the postal system. A number of the best papers in Canada are with the movement.

[2] Vrooman's "Public Ownership," pp. 214, 216. Also 10th Census, vol. 4, "Postal Telegraph," Postmaster General Creswell's report, 1872, with statistical tables, and the Statistical Yearbook of Canada, 1892, p. 301.

[3] H. Rept. 114, 41–42, p. 2; 10th Census, vol. 4, "Postal Telegraph."

[4] The first English telegraph line was built in the forties. In 1854 complaints began to be made of extortion, error, and inadequacy. These were repeated at intervals until the Edinburgh Chamber of Commerce brought the matter of public ownership definitely before Parliament in 1865, and in 1868 a bill was passed to enable the Postmaster General to acquire and operate the telegraph lines, and the transfer was made Feb. 1, 1876. (Bronson C. Keeler in Forum, vol. 9, p. 454, and H. Rept. 114, 41–42, pp. 6 to 8.)

[5] James Russell Lowell, Phillips Brooks, Francis A. Walker, and others of the highest character and attainments have expressed their sympathy with the movement, though too much engrossed with other cares to take an active part in it. In respect to the first two I speak from personal knowledge. President Walker, in a lecture entitled, "Confessions of an individualist," delivered at the Charlesgate, Boston, Mar. 14, 1894, laid down the principle that the line between Government functions and those which were not was the line between "services and offices which tend to become monopolies and those which do not." This clearly includes the telegraph among Government functions. It not only tends to become a monopoly, it is a monopoly now of the worst and most dangerous type. (Can. Arg. 1890, p. 5; S. Rept. 805, p. 1; I. T. U. hearings. Board of Trades Report on Telegraph, 1882, p. 11.) President Walker further said that another valid test would include in governmental activities any function in respect to which experience showed public administration to be beneficial to society and productive of an increase of individual activity. This rule also would make the telegraph a Government service, as the facts that appear in the text of this and subsequent chapters abundantly prove. In conversation lately (Dec. 1895) with the General I referred to his lecture at the Charlesgate, and he said in substance: There are no hard and fast lines by which to determine what the Government shall do. When the people desire a reform we should have it. But it is not well to make a change before public sentiment is ready to stand behind it. If we do reaction may follow and we shall go back. The telegraph service is better in France, England, and Germany than it is here, and it will be well to put it under Government control whenever the people wish it. I remarked that millions of people and the greatest organizations in the country had persistently demanded a national telegraph, and that John Wanamaker declared the Western Union to be the only visible opponent, upon which the General said, "If that be true the time has come for it." The opinion of President Walker is of great importance because he is the acknowledged leader of the conservative school of political economy, the recognized chief of those most likely to object on philosophic grounds aside from considerations of self-interest, to any extension of Government functions. If individualism and conservative political economy agree to the postal telegraph what is there but fossilized prejudice and selfish disregard of the public good to oppose it. (Date of this note, Dec., 1895.)

[6] The Farmers' Alliance and Industrial Union, the National Grange, the Knights of Labor, the Railway Union, the American Federation of Labor, the International Typographical Union, the People's Party, and the Prohibitionists are a unit on the question of Government ownership of the telegraph. In 1892 the Populists claimed 2,000,000 ballots and managed to get more than a million cast, counted, and recorded to

And all the time the active opposition has come from a single source—the group of capitalists who claim the exclusive right to send the English language along an electric wire.[1] It is true that a small but powerful group of politicians and conservatives have lent their aid to the grateful monopoly by delaying legislation, hindering investigation, and pigeonholing reports, but the monopoly itself is the only one that appears in active opposition to the postal telegraph. The line of battle is clearly drawn. On the one side the farmers, merchants, mechanics, and working classes—the whole body of the people—with the philosophers, statesmen, philanthropists, and reformers; on the other the Western Union, the politicians, and a few individuals who have not

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their credit. The Prohibitionists polled a quarter of a million, so that probably a million and a half of votes were cast in support of parties making the national telegraph one of their chief demands. The Farmers' Alliance, in 1890, claimed a membership of over 4,000,000 men and women, according to a book about the alliance by H. R. Chamberlain, p. 7. The paid-up membership is said to be a good deal less now, but it is still true that the alliance together with the National Grange substantially represents the agricultural interest and sentiment of the country, and both organizations have most emphatically announced their wish for a Government telegraph (Journal of Proceedings of the National Grange, 26th sess., 1892, p. 207; special report of the I. T. U. committee on Governmental ownership and control of the telegraph, 1894, p. 42, et seq.; testimony of Marion Butler, president of National Farmers' Alliance before the House Committee on Post Offices and Post Roads). The American Federation of Labor represents the trade unions of the country and is composed of over 800,000 workingmen who demand Government ownership of the telegraph (President Gompers' testimony, special report I. T. U., p. 7). At one time 530,000 Knights of Labor signed a petition for a Government telegraph. (Statement of Mr. Beaumont, Mar. 7, 1890. Wanamaker's argument, 1890, p. 2.) At another time Grand Master Workman T. V. Powderly is said to have declared that 800,000 signatures were obtained by the knights upon a petition for Government ownership, and the petition was circulated only three weeks. In 1888 a resolution was submitted in the House, which began thus: "Whereas petitions bearing the signatures of more than two millions of citizens of the United States request Congress to pass a bill and provide for the establishment of a postal telegraph system" (Wan. Arg., p. 179). Away back in 1875 massive petitions had poured in upon Congress from 28 States and 3 Territories asking the Government to build a telegraph. Truly, as Mr. Wanamaker says, "the agricultural and industrial masses want the telegraph within their reach." (Wan. Arg., p. 3.)

No less strenuously do the commercial masses desire Government ownership of the telegraph. A strong stand upon this question has been taken by the New York Board of Trade and Transportation, the Manufacturers' Club of Philadelphia, the Chambers of Commerce of Denver, Pittsburgh, Richmond, etc., the Commercial Club of Kansas City, the Board of Trade of Jersey City, the Norwich Board of Trade, the Winona Board of Trade, and numerous other powerful organizations of capital. The National Board of Trade declares in its reports that it "represents a majority of the commercial organizations of the country," and year after year it has made the question of a national telegraph one of the main objects of its solicitude (see Rep. of Ex. Com. N. B. T., Nov. 15, 1882, and statements before Committee on Post Offices and Post Roads, Mar. 25, 1890, p. 16 et seq.). Here are the names of some of the great organizations which belong to the National Board of Trade: Baltimore Board of Trade, Baltimore Corn and Flour Exchange, Boston Merchants' Association, Bridgeport Board of Trade, Chicago Board of Trade, Cincinnati Chamber of Commerce, Detroit Board of Trade, Indianapolis Board of Trade, Milwaukee Chamber of Commerce, Milwaukee Merchants' Association, Minneapolis Board of Trade, New Haven Chamber of Commerce, New York Board of Trade and Transportation, New York Chamber of Commerce, Philadelphia Board of Trade, Portland (Oreg.) Board of Trade, Providence Board of Trade, San Francisco Chamber of Commerce, Scranton Board of Trade, St. Paul Chamber of Commerce, Trenton Board of Trade.

At least four State legislatures have joined in the petition to Congress for Government ownership of the telegraph, Massachusetts passing the resolution in 1893 without a dissenting voice. The Philadelphia common and select councils have also unanimously passed a similar resolve. Even the press, though largely under the thumb of the telegraph monopoly, have to a surprising extent indorsed the demands of the business men, mechanics, and farmers. Wanamaker says: "Of 289 newspaper articles which have come under my notice during this discussion (1890), 209 are for postal telegraphy and 80 against it. The objections are mostly smartly-turned sentences about the utter business inexperience of persons engaged in trade." (Wan. Arg., pp. 3, 22, et seq.) In Appendix K (p. 182 et seq.) of the Wanamaker pamphlet are gathered a large number of articles published in 1883, just after the telegraph strike; most of them strongly favor a public telegraph, and nine-tenths of the favorable clippings support the plan of Government ownership. We shall see later why it is that the press is not so entirely unanimous in its advocacy of a national telegraph as the business men are and the agricultural and industrial masses, whose organizations speak for 24,000,000 of workers, representing nearly the whole 70,000,000 of our population.

[1] Wanamaker said in 1890: "The Western Union is now the only visible opponent"; and the select committee of the House on the postal telegraph in 1870 said that objections to Government interference with the telegraph had "come altogether from one quarter, namely, the Western Union Co." (H. Rept. 114, p. 13). Western Union methods of debate will be dealt with in detail hereafter, but it may be well now to clear the way of a few of their favorite fallacies.

"A public telegraph will paternalize the Government," say the defenders of monopoly. If so, it is pretty badly paternalized now, with the Post Office, the Fish Commission, the Treasury, customs, Navy, agricultural, judiciary, signal service, and all the other departments; but the people don't seem to desire to give up such paternalization—they appear to enjoy it. In truth, however, public service is not paternalism, but fraternalism. A father is not elected by his children to control them, and his rule does not rest upon their assent. If you and I choose Mr. B. to manage certain affairs for us, the said B. does not become our paternal relative, but our agent.

"It will cost too much." It need not cost the people one dollar of taxes to establish the postal telegraph. Plenty of capitalists are ready to build the lines for the Government, introduce low rates, and agree to turn the plant over to the Nation for actual value at the end of 15 or 20 years, or allow the service to pay for the plant gradually (as in the case of the Springfield electric works, see City for the People, p. 187), a method that would give the people a clear title in a few years, even at rates far lower than those in force now (see testimony of the representatives of New York syndicates that were ready and willing to build a postal telegraph system under the provisions of Wanamaker's bill. The Bingham committee hearings, Mar. 4 and 14, 1890). Better still to build or buy and issue Treasury notes in payment; that would correct in part the evils of the vast contraction of the currency that has so long oppressed the people and secure the telegraph without a burden. Or bonds could be issued and the service let to pay the debt in 15 or 20 years on the plan by which Wheeling secured her gas works. In either way no taxes are needed. As for the cost of operation, the select committee on the telegraph in 1870 calculated that the Government could do the business performed by the Western Union at a cost of at least $1,500,000 a year lower than the Western

recovered from the soporific doses of the ancient political economy of bestillity and letaloneativeness injected into their thought in their college days and who are not yet sufficiently awake to know that the days of laissez-faire are done. On the one side commerce, agriculture, manufactures, labor, philosophy, and progress; on the other side Wall Street, self-interest, and sophistry. On the one side the people and common sense; on the other unscrupulous power and its allies—the people against monopoly.

Union could do it; the absolute saving would be at least that much by reason of combination with the post office and consequent saving in rent, fuel, light, and the distribution of labor (H. Rept. 114, p. 44). As the telegraph plant and business is over six times as large now as in 1870, and the expenses have grown fourfold, the saving in the same proportion would not be less than $6,000,000 a year. This is on the supposition of continuing to do business by the methods now in use; but if improved methods well known in the electrical world were adopted in the postal telegraph the saving would be far greater, so great, indeed, that there seems every reason to believe a uniform rate of 10 cents a message of 20 words would yield a substantial profit. Proof of this upon the highest and most disinterested electric and telegraphic authority will be given when we come to the subject in the text.

"The postal telegraph may be all right in Europe, but not in America. We don't want to imitate the monarchical systems and institutions of the Old World." I wonder if the gentlemen who made this "argument" and those who repeat it refrain from using knives, forks, spoons, pens, books, buildings, the public post, roads, parks, etc., because they are in vogue in Norway and Sweden, Denmark, Belgium, Germany, etc.. Do they abstain from wearing clothes, because the wearing of clothes is an institution that exists in Russia? Do they go on their four legs for fear of imitating the kings and emperors by walking on two? We must not wear overcoats or neckties or trousers, the Germans do that. It was very dangerous, wasn't it, for us to adopt the idea of that monarchical Englishman, Stephenson, or the idea of that imperial Dutchman, Gutenberg, and it will be equally dangerous for us to adopt the idea of the despotic Gladstone that the telegraph is a good thing in a post office, won't it? It does seem as though fast mails would be as valuable and sensible in a republic as in a monarchy. France thinks so, and Switzerland, the most democratic country in the world. New Zealand also and the States of Australia—these are all republics and each has a national telegraph system; we may imitate them if you insist on regarding the question as a matter of imitation—or we may take England as an example, for she is in every substantial sense as real a republic as the United States. In truth, such objections seem foolish and weak, and must arise from very careless thinking, reckless appeal to prejudice, or a desperate lack of good argument. I would not trouble the reader with a refutation were it not that men in high position have been known to repeat such absurdities and give them the impetus of their names, whereby insidious appeals are made to the thoughtless prejudice of unenlightened patriotism. True patriotism, wide awake, demands for America all that is good, whether it originates in Europe or the Fiji Islands. In the case of the telegraph, however, we have only to follow the lead of our own Government, which was the first to adopt the electric telegraph and establish it, in connection with the post office, where it would have remained to this day had it not been for the power of private capital and the weakness of some of our legislators, and the failure of others to foresee the enormous value of the telegraph.

"It will put the Government into the field of private enterprise." Well, that is what the people have been doing since the dawn of civilization. Defense was once dependent entirely on private enterprise, so were education, justice, prevention, and punishment of crime, guarding against disease, care of the sick, extinguishment of fire, manufacture of the weather, transmission of intelligence, etc. The people have put the Government into the field formerly occupied by private enterprise because they have become aware that the Government could do the work better than private enterprise. In the present case of the telegraph, however, the quoted words at the head of this paragraph are not strictly true. It would have been more accurate to say of the postal telegraph, "It will put the Government into a field now occupied by despotic monopoly."

"It is not the Government's business." "It is out of the Government's sphere." Senator Edmunds does not think so (see S. Rept. 577, part 2); nor Walter Q. Gresham (Postmaster General's Report 1883); nor Judge Clark, nor 17 or more committees of Congress, nor Congress itself, nor the Supreme Court of the United States (see for authorities, the last topic of this chapter, "Duty of the Government to establish a postal telegraph.") Henry Clay did not think the telegraph was out of the Government's sphere, nor did Charles Sumner, of Massachusetts; nor Thomas Jefferson, Alexander Hamilton, James Madison, Benjamin Franklin, and the other founders of the Constitution, who expressly made the transmission of intelligence a part of the business of the Government; surely these men knew more about the legitimate sphere of Government than the Western Union and its allies. Prof. Ely does not think the telegraph is beyond the sphere of Government; nor did President Walker, the head of the school of conservative political economy; nor Gladstone, who represents high-water mark in the statesmanship of England and to whose efforts that country largely owes its postal telegraph; nor Bismarck, nor Carnot, nor the patriot statesmen of Switzerland. The truth is that anything the Government can do to benefit the people is within its sphere; the public good is the supreme law. It is just as much within the sphere of the Government to send a message along a wire as to send it along a railroad or pneumatic tube. The Government is simply an instrument to render service for the people. A cobbler might have opposed the use of the sewing machine for stitching leather on the ground that such work was out of the sphere of the sewing machine, with just as much reason as the Western Union in opposing a postal telegraph on the ground that such work is out of the sphere of the Government.

"The Government could not be sued." It will be an easy matter to provide that damages for error or delay should be recovered by suit against "the telegraphic department."

"But the increase of patronage will be dangerous." There need not be any increase of patronage. The Government may contract for telegraphic service as it does for railway service. Or it may own the lines and contract for the service. Or better far, it may own and operate the lines under strong civil-service rules, as is the case in England, France, Germany, Switzerland, Australia, and other countries (see Eleventh Report, United States Civil Service Commission, 1895). With a solid civil-service law and a nonpartisan board (i. e., a board composed of a member from each party), to administer it, an increase of public employees no longer means an increase of patronage, for there is no patronage where appointment depends upon merit proved in competitive examination, promotion follows on valuable service, and removal is only for serious cause judicially ascertained with a right of appeal to the regular courts. Such provisions would form a part of a wise postal-telegraph law. But even without them the danger from increase of patronage would be slight. Uncle Sam has 240,000 employees. In combination with the post office, the telegraph would not require an addition of more than 20,000, a large part of them women and boys who are not yet able to vote. With a population of 70,000,000 and a voting class of 18,000,000, a group of 260,000 Government employees does not look alarmingly dangerous, especially when we consider that 48,000 are already under civil-service rules, 40,000 more in Army and Navy, and another large body composed of quite inoffensive women. Some

Able counsel for the people have not failed to push their cause. Senator Edmunds in 1883 introduced a bill to establish a postal telegraph, another in 1885, and another in 1887. Senator Dawes from 1873 to 1888 introduced four bills to provide for the transmission of correspondence by telegraph. Others have been equally persistent. Altogether more than 70 bills have been introduced into Congress for the purpose of establishing a postal telegraph. Nineteen times committees of the House and Senate have reported on the question, 17 times in favor of the measure, 2 against, a clear majority of three-fourths in favor of the people.[1] Some of the ablest men in Congress have conducted these investigations and made the reports.

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years ago the Government had 2,500,000 employees and they were armed to the teeth and many croakers predicted that they would do dreadful things; but they didn't, they saved the Republic.

"The secrecy of messages will be violated." There is no complaint of such sort against the postal telegraph in England or on the Continent, but there have been loud complaints against the Western Union on this head, both in respect to United States Government messages, even in time of war, and in respect to individual business, and the facts have been proved in court and damages awarded (H. Rept. 114, pp. 10-12, 68, and Congressional Record, 2d sess., 43d Cong., p. 1422).

"Only 1 in 60 uses the telegraph. No probable reduction of rates or increase of facilities would be apt to raise the proportion much, and it would not be fair to put on the taxpayers the burden of a service used only by a few." As already remarked there will not be any burden about it. The business can easily pay for itself and more as it does in many countries across the sea. It will be more apt to lower the rates of taxation than to raise them. But there is another and deeper falsity in the above objection. The statement that "no probable reduction of rates or increase of facilities would be apt to raise the proportion" of people using the telegraph is a statement that could only be made by one unacquainted with the history of the telegraph and the post office, both in Europe and America, and with the history of this discussion, or by one entirely free from any inconvenient regard for the truth. The facts set forth in numerous public documents in this country and in Europe and reported to Congress by its committees again and again conclusively prove that reduction of rates and increase of facilities produce the most astonishing increase in the use of the service. "The reduction of rates one-half in Belgium and Switzerland doubled the correspondence in one year" (S. Rept. 242, 43-1, p. 4), and the extension of facilities was slight, only one-fifteenth to one-twentieth, merely the normal growth (see statistics, H. Rept. 114, pp. 2, 56). R. B. Lines, who made the census of the postal telegraph for the United States Government, testified as follows before the House Committee on Appropriations: "In Switzerland and Belgium a reduction of one-half in the rates produced a double business in one year, with very slight increase of facilities. In Great Britain the adoption of a uniform and slightly reduced rate nearly swamped the lines with messages, and in Canada a reduction which applied to less than 10 per cent of the business augmented it 25 per cent in the first year" (H. Mis. 73, 42-3). "In Prussia in 1867, a reduction of 33 per cent in the rate was followed by an increase, in the very first month after the change, of 70 per cent in messages. In France, in 1862 a reduction of 35 per cent in the rate was followed by an increase of 64 per cent in messages. The Swiss inland rate was reduced 50 per cent on January 1, 1868, and in the first three months there was an increase of 90 per cent in the inland messages over the corresponding months in the previous year" (H. Rept. 114, p. 3). The Belgian director of telegraph writes in respect to the several reductions in his country: "These reductions have caused four times the number of dispatches that would have been sent at the old rates. It has thus been a great boon to the people" (H. Rept. 114, p. 24). In Switzerland, "reduction by one-half of the internal tariff had the effect of doubling the number of dispatches of that class, and that immediately, almost without transition" (Swiss report for 1868, quoted in H. Rept., 114, p. 28). In England a reduction of 33 per cent on three-tenths of the messages and 50 per cent on the remainder caused an increase of 100 per cent in the business in about two years. There was in this case a considerable extension of lines. One president of the Western Union forgot to sustain this plea of no great prospect of increase of business by reason of reduction of rates and increase of facilities, and he testified before the select committee on the postal telegraph that if the bill it was considering should be adopted rates would be decreased 60 per cent and "the messages offered for transmission would be from 10 to 50 times more than the wires would carry" (H. Rept. 114, pp. 32, 125, 134).

And the Western Union does not do and never has done one-half the business its lines would carry, so that the total increase, according to Mr. Orton, would be from twenty to one hundredfold the present business. The development of business consequent upon low rates and the extension of lines involves the use of the telegraph by a larger number of people. The wealthy people of the cities use it now all they wish to; they would use it little, if any more, with a 10-cent rate than with a rate of 25 cents. But to the poor and to people in moderate circumstances the difference between the telegraph and postal rates is practically prohibitive, except under the stress of very special need. President Green, of the Western Union, said that 46 per cent of their business is speculative, 34 per cent legitimate trade (his own words), 12 per cent press, and 8 per cent social (Bingham hearings, 1890, p. 56). In Senate Report 577, Part II, page 15, the then president of the Western Union said the company's social business was 5 or 6 per cent of the whole. In Belgium the social messages constitute 55 to 63 per cent of the whole. Formerly when the rates were higher the social business was only 13 per cent in that country (I. T. U. hearings, 1894, p. 17; S. Rept. 577, p. 16). In England the social business is said to be four times as large as in this country—eight times as large in proportion to the population (testimony, G. G. Hubbard, I. T. U. hearings, 1894, p. 24). In Switzerland the social dispatches are 61 per cent of the whole (S. Rept. 577, p. 16). Comment is unnecessary. The facts speak for themselves.

[1] The adverse reports are: H. Rept. 32, Fortieth Congress, third session, 1869; S. Rept. 434, Fiftieth Congress, first session, 2 pages.

The favorable reports are: H. Rept. 187, Twenty-eighth Congress, second session, March 3, 1845, Committee on Ways and Means; H. Rept. 114, Forty-first Congress, second session, July 5, 1870, Washburn, Select Committee on Postal Telegraph; H. Rept. 115, Forty-first Congress, second session, Palmer; H. Rept. 6, Forty-second Congress, third session, 1872; H. Rept. 125, Forty-third Congress, second session, 1875, Gen. Butler, Judiciary Committee; H. Rept. 137, Forty-sixth Congress, third session, 1881, Committee on the Post Office and Post Roads; H. Rept. 2004, Forty-seventh Congress, second session, 1883, Bingham; H. Rept. 1436, Forty-eighth Congress, first session, 1884, Committee on the Post Office and Post Roads; H. Rept. 955, Fiftieth Congress, first session, 1888, Rayner, Committee on Commerce; S. Rept. 18, Forty-first Congress, second session, 1870, Ramsey, Committee on Post Offices and Post Roads; S. Rept. 20, Forty-second Congress, second session, 1872, id.; S. Rept. 223, Forty-second Congress, second session, 1872, Zachary Chandler, Committee on Commerce; S. Rept. 242, Forty-second Congress, third session, 1872, Committee on Post Offices and Post Roads; S. Rept. 242, Forty-third Congress, first session, 1874, id.; S. Rept. 624, Forty-third Congress, second session, 1875; S. Rept. 577, Forty-eighth Congress, first session, 1884, N. P. Hill, Committee on Post Offices and Post Roads; S. Rept. 577, Forty-eighth Congress, first

Of the two adverse reports, one was a two-page document mildly expressing the opinion that the telegraph monopoly should be regulated, but that public ownership was not best because of the increase of patronage and because the committee thought it would cost more to run the telegraph under the Government than under private enterprise. No evidence was taken, no investigation was made; the committee simply stated their feeling about the matter. The report was made by John H. Reagan, of Texas.

The other adverse report was made in 1869, upon the ground that the five years of security given to the companies by the law of 1866 had not elapsed. The telegraph act[1] of July 24, 1866, gave any company organized under the laws of any State a right to construct and operate lines "through and over any portion of the public domain of the United States, over and along any of the military or post roads of the United States, and over, under, or across the navigable streams and waters of the United States," on condition: (1) That Government business shall have priority of transmission over all other business and shall be sent at rates to be annually fixed by the Postmaster General; (2) "that the rights and privileges hereby granted shall not be transferred by any company acting under this act to any other corporation, association, or person: *Provided, however*, That the United States may at any time after the expiration of five years from the date of the passage of this act, for postal, military, or other purposes, purchase all the telegraph lines, property, and effects of any or all of said companies at an appraised value, to be ascertained by five competent, disinterested persons, two of whom shall be selected by the Postmaster General of the United States, two by the company interested, and one by the four so previously selected; (3) that before any telegraph company shall exercise any of the powers or privileges conferred by this act, such company shall file their written acceptance with the Postmaster General of the restrictions and obligations required by this act."

The Western Union and other companies accepted the provisions of this act and extended their lines on the faith of it, wherefore the committee were perfectly right in saying that as the period fixed by the statute had not expired, Congress ought not to pass "any law hostile to the spirit of the contract into which the companies had entered by its invitation," and in refusing to favor bills to establish Government lines which would subtract from the companies' business during the said five years.[2]

The only adverse matter of any volume or even apparent weight consists of the testimony of successive presidents of the Western Union and the arguments of the company's counsel. Such testimony and argument has occupied much time in several congressional hearings and has also appeared in pamphlet, magazine, and newspaper form.

Of the favorable reports, the most important are House Reports 114 and 187 and the Senate Reports 18 and 577. Valuable data and powerful arguments are also to be found in the proceedings of committees that did not make a formal report. The argument of Postmaster General John Wanamaker and the testimony taken by the Bingham committee in 1890 are worthy the most careful attention.[3] The investiga-

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session, part 2; S. Doc. 291, vol. 11, Fifty-fourth Congress, first session, 1896, M. Butler, Committee on Post Offices and Post Roads.

For further materials see the following hearings, memorials, etc.: H. Mis.. 36, Forty-first Congress, third session, Washburn; H. Mis. 39, Forty-first Congress, third session, Hubbard; H. Jour., p. 173, Forty-first Congress, third session, Washburn; S. Ex. Doc. 14, Forty-second Congress, second session, Belknap, Secretary of War; H. Rept. 69, Forty-second Congress, second session, Committee on Appropriations; H. Mis. 73, Forty-second Congress, third session, Id.; S. Mis. 79, Forty-second Congress, third session, Hubbard; S. Rept. 805, Forty-fifth Congress, third session, Committee on Roads; S. Mis. 86, Forty-second Congress, second session, Memorial of Western Union; S. Mis. 39, Fiftieth Congress, first session, Id.

The investigation on "Labor and Capital" by the Blair committee of the Senate on education and labor, Forty-eighth Congress, 1883.

Census Report on Foreign Postal Telegraph, by R. B. Lines, 1883.

The Bingham hearings, "Statements in regard to postal telegraph facilities," being the hearings of the House Committee on the Post Office and Post Roads in reference to the Wanamaker bill, 1890.

International Telegraphers Union hearings before the Committee on the Post Office and Post Roads May 4 to June 26, 1894.

Consul's report, 1895, vol. 7, page 564, English telegraph.

Fifty-fourth Congress, S. Doc. 205, vol. 7, Papers on Government ownership.

Fifty-fifth Congress, S. Docs., vol. 5, Nos. 83, 127; vol. 6, No. 187.

Fifty-fifth Congress, S. Docs., vol. 3, No. 39; vol. 6, No. 154; vol. 11, Nos. 159, 173, 201; reports of consuls.

In H. Rept. 69 the committee had no question before them but the interpretation of the telegraph act of 1866 in respect to the powers of the Postmaster General, etc. In S. Rept. 805 the Committee on Railroads was instructed to inquire if it was expedient to authorize the railroads to do telegraph business. The committee reported that "In order to intelligently conclude as to the proper remedy for the evils sought to be cured, to wit, the great existing monopoly of the business of transmitting telegraph dispatches," the committee's powers of inquiry should be extended so as to "embrace the expediency of a postal telegraph system."

[1] U. S. Stat. L., 1866, p. 221.

[2] H. Rept. 32, 40-3, p. 7 (1869).

[3] The hearing was before the House Committee on the Post Office and Post Roads, Fifty-first Congress. Only a few copies of the proceedings were published. Mr. Wanamaker's argument and part of the evidence were printed under the title, "An Argument in Support of the Limited Post and Telegraph by the Postmaster General," Government print, 1890. This can be easily obtained and is one of the most valuable documents in the literature of the subject.

tions of the Blair Committee in 1883,[1] and the International Telegraphers' Union hearings before the House Committee on the Post Office and Post Roads in 1894 are also specially valuable. The reports of our Postmaster Generals,[2] the public documents of England, France, Germany, Belgium, Switzerland, Sweden, Norway, Italy, Russia, New Zealand, and Australia, the volumes of the Arena, Forum, North American Review, and other magazines, the works of electrical engineers, the Western Union reports, the proceedings of labor unions and of commercial organizations, the

[1] The hearings occupied about a year's time of the Senate Committee on Education and Labor. The testimony taken by the committee is published in four volumes under the title "Labor and Capital." A fifth volume was announced but never published, because the committee for some reason did not make a report.

[2] The most noteworthy are those of Cave Johnson, 1844–45; Creswell, 1871–72–73; Maynard, 1880; Howe, 1882; Gresham, 1883; and Wanamaker, 1890–1892; the last two and Creswell's report of 1872 are the most important. All but Mr. Gresham advocate the postal telegraph. Mr. Gresham quotes the following words from the report of the Committee on Ways and Means (H. Rept. 187), and calls them "just remarks": "The same principle which justified and demanded the transference of the mail on many chief routes from the horse-drawn coach on common highways to the steam-impelled vehicles on land and water is equally potent to warrant the calling of the electromagnetic telegraph in aid of the post office in discharge of its great functions of rapidly transmitting correspondence and intelligence." Later in the report he states that he does "not feel at liberty to recommend a Government telegraph because of the danger to purity of administration arising from an increase of service under the spoils system." The only way to reconcile these two ideas expressed within the same report within a few paragraphs of each other, is to conclude that Postmaster General Gresham would favor a postal telegraph under thorough-going civil-service rules impartially and firmly administered, for that would carry out the principle he advocates and at the same time avoid the danger he fears; and that is precisely the kind of postal telegraph we advocate, so that Walter Q. Gresham seems to be substantially in harmony with the movement.

Postmaster General Bissell devotes three pages to the subject in his report for 1894. He opposes a postal telegraph. He thinks it would cause a deficit and be productive of "wrangling and jealousy" through the "limitless difficulty of determining the character, quality, and amount of service that should be accorded to the various sections of the country." It is hard to see why the introduction of electric mails should cause any more wrangling and jealousy between different sections of the country or any more trouble in distributing the service than the introduction of steam mails or the adoption of the free-delivery system. Give fair facilities to all and better facilities where the amount of business warrants it; the test of population and business done determines the distribution of service now without the slightest difficulty and would do so just the same if the functions of the post office were multiplied a hundredfold. As to the deficit, Mr. Bissell bases his belief on the assertion that the English postal telegraph does not pay its operating expenses. This is not true, but if it were, the conclusion of Mr. Bissell would not follow. If it is good logic to say, "England has a deficit on its postal telegraph, therefore the United States would have a deficit on its postal telegraph," then it is good logic to say, "France, Switzerland, Sweden, Belgium, and other countries realize a profit on their postal telegraph, therefore the United States would make a profit on the postal telegraph." As already remarked the statement of the Postmaster General in respect to England is not true, though he doubtless thought it was. He says, on page 48 of the report for 1894, that the interest on the English telegraph investment for the year 1893 was $1,455,584. "In the operation of the service there was a further loss of $811,741."

The report of the English post office for 1893 showed that there has been a large extension of lines to life-saving stations and other points, 673 new offices in all. I suspected that the cost of new construction had been included in the "expenditures assumed by Mr. Bissell to be operating expenses, so I wrote to the English postmaster general, and here are the figures he sends me for 1893:

TABLE I.

Total receipts	£2,526,312
New purchase and construction	185,609
Operating expenses	2,507,385
Total expenditure	2,692,994
Net profit on operation	18,927
Interest	298,888

So there was a net profit on operation of $94,000. I suppose some one who looks at the lump sums of the English postmaster general's report for 1899 and does not think of inquiring about the items, will be telling some one that there was a deficit in operation of a million dollars, whereas the itemized account shows that, taking out the cost of new construction, there was a net profit of $500,000. In 1890 the net profit was $1,451,320; in 1887 it was $442,420; in 1881 it was $2,257,315; in 1875 it was $435,375; in 1873 it was $568,995; in 1896 it was $640,000; in 1897, $680,000; in 1898, $240,000; in 1899, $500,000. Such are some of figures taken at random. The profit varies; but every year from 1899 back to the first report, in 1871, shows a considerable net profit in the operation of the telegraph, with the exception of 1894 and 1895. In the last 8 years and the 5 years, from 1884 to 1888, the surplus was not sufficient to defray the cost of new construction or extensions; but in each of the other 16 years the net profit was a good deal more than sufficient for this purpose—the excess, after paying for all extensions, rising in some years as high as a million and a half of dollars. From February, 1870, down to the present time the actual cash received for postal-telegraph service in England has paid all operating expenses and all cost of extensions, new purchase, and construction, and turned into the treasury a considerable net profit in cash, besides rendering free service to other departments of the Government, which, at regular rates, would have amounted to more than $3,000,000. As we shall see hereafter, the English post office has sent the telegraph into thousands of rural districts, where the private companies did not and would not go, has established rates that are several flights of stairs below ours, and adopted the policy of raising the salaries of employees every year in a ratio of 2 to 3 per cent. In spite of all this, the operating account shows the gratifying results above mentioned—a financial as well as a social success. Yet the erroneous statement of Mr. Bissell will doubtless be quoted by persons opposing the postal telegraph without stopping to investigate its truth.

As to capitalization and interest, we do not need to follow in the footsteps of the English post office. We should not pay several times the value of existing lines if we buy nor go into debt if we build. The whole matter can be managed without a dollar of taxation, as will appear hereafter, and our system can render good service at very low rates and still make a profit. Even if the English department had not made a profit in 1893, it would not follow that it must keep on at a loss, for its history shows that the surplus is small one year and large the next, moving up and down in an irregular line. Even if the English depart-

platforms of political parties, the speeches of prominent men, and the files of our leading newspapers have all a place in the study of this question of the telegraph.[1]

With this brief review of the history of the case and the sources of evidence, let us turn our attention to the plaintiff's brief.

The plaintiffs respectfully present for the consideration of the court the following points in support of their claim that the telegraph should be used in connection with the post office in order that their correspondence may be carried on with the swiftness and economy that characterize the transmission of intelligence in other parts of the civilized world.

Section 1: It is the positive duty of the Government to use the telegraph as a factor in the postal service. This duty is imposed by the Constitution. The Constitution intrusted to Congress the power "to establish post offices and post roads." This power is interpreted by the Supreme Court to mean the transmission of intelligence in any form and by any means (96 U. S., 1). The Federal Government is therefore the agent of the people for the transmission of intelligence. It is a well-settled principle of law and justice that an agent is bound to be loyal to the interests of his principal, bound to execute his trust in at least as enlightened and energetic a manner as he does his own business of a similar nature, bound to use modern methods and improvements of established value in the transaction of business of the sort that has been intrusted to him. An agent to build a house would not discharge his duty by building a log cabin in the style of olden times; he must avail himself of the architectural science of the day and build a good modern house just as if he were building for himself, or better. An agent who uses one method in his own affairs and an inferior method in similar affairs of his principal is clearly neglecting his duty, to put it as mildly as possible. Yet this is just what our Congressmen are doing when they use the telegraph to forward their own correspondence but refuse to use it to forward the correspondence of the people.

Clearly the Federal Government is the agent of the people for the transmission of intelligence; clearly it ought to adopt new and better methods of transportation as advancing civilization reveals them; clearly the superiority of the telegraph has long since been revealed; therefore clearly it has been and is the duty of the Federal Government to utilize the telegraph in the carriage of the people's correspondence. To hold the contrary, to say that Congress is not bound to adopt new methods as they are discovered and proved to be superior, is to say it would have done its duty by continuing to carry all the mails by foot and horse, refusing the aid of steam. Any rule that would relieve Congress of the duty of using e ectricity in the service of the Nation, would equally relieve it of the duty of using steam or even horse power in their service, and any principle that establishes the duty of the Government to use the power of steam in the people's business establishes with still greater emphasis its duty to use the telegraph.

Postmaster General John Wanamaker adopts this view that it is the duty of Congress to establish a postal telegraph.[2] Indeed it has been from the first the almost unbroken doctrine of the Post Office Department that it was in duty bound to keep up with the times and not permit itself to be outstripped in the rapidity of communicating intelligence. (See H. Rept. 187, quoted below.)

Senator C. A. Sumner, of California, said before the House Committee on Post Office and Post Roads, on March 25, 1884:

"I lay it down as a proposition that I want to have duly considered by this committee and the country—that the Constitution of the United States as interpreted by a century of unchallenged legislation, does imperatively require that the Congress of the United States shall establish a postal system. I lay it down as a fundamental

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ment made a loss every year, it would not follow that we should do the same, for we need not carry the press dispatches at rates not only far below ours, but considerably below cost, as England does. And finally, even if a good postal telegraph system in the United States should be operated at a loss (which need not be), still it would be no argument against its adoption until it were shown that its vast benefits were not worth the expense. And Postmaster General Bissell should be the last one to raise such an objection, for on the first page of this very same report of his I find these words about the Post Office Department: "It can not and should not stop to consider little economies. It must needs exert itself to the utmost to secure the best possible results in the way of celerity, accuracy, and security in the dispatch of the mails and without sparing any reasonable expenditure in that behalf."

[1] The article of Dr. Norvin Green (president of the Western Union) in the North American Review, vol. 137, p. 422 (1883), adverse, and the favorable articles by Cyrus W. Field in the North American Review for March, 1886; by Bronson C. Keeler in the Forum. vol. 9, p. 450 (1890); by Judge Clark, of the Supreme Court of North Carolina, in the Arena, March, 1892, and August, 1895; and the present symposium by Prof. Ely, Lyman Abbott, and others in December, 1895, and following issues, are of special interest. A number of newspaper articles relating to the postal telegraph will be found in the Wanamaker pamphlet, p. 22 et seq., and p. 182 et seq. A list of bills and resolutions is given, pp. 173-180, and a list of speeches in Congress on pp. 180-181. The Congressional Record, the newspapers, the various reviews, and the catalogues of the great libraries will supply the reader with abundance of other materials if he desires to devote his life to the subject.

[2] Wanamaker Pamphlet pp. 148-149.

proposition that the postal telegraph is a part of the postal system of the Government; the postal system of the United States having been established for the puprose of transmitting intelligence between the inhabitants of the land."

Gardiner G. Hubbard says that Congress had no more right to delegate the power of transmitting intelligence than the power to coin money or declare war. Senator Edmunds said in his testimony before the Senate Committee on Post Offices and Post Roads that government was constituted to promote the general welfare, to disseminate intelligence, to defend the country, etc., and that the telegraph was essential as a military establishment, essential to education, and to social welfare.[1]

The Senate Committee on Post Offices and Post Roads of 1874, which numbered among its numbers such men as Hannibal Hamlin and Alexander Ramsey, said in its report on the telegraph:

"The Constitution devolved upon Congress the duty of transmitting all correspondence including that by telegraph as well as that by mail." [2]

But to find the most careful and convincing statement of this point we must go back to the House Committee of Ways and Means in 1845. The Government had already built the first telegraph line and the question of extending the service under Government ownership was before the committee. Here is a portion of its noble report: [3]

"The Government is authorized and required by the Constitution to carry intelligence. The functions thus devolved on the Government of performing for the people the office of universal letter carrier and news carrier is a matter of the very highest consequence in every light in which it can be viewed. The bare fact that our ancestors refused to leave it dependent on individual enterprise or State control, and rested it expressly in Congress, abundantly attested their anxious sense of its importance and their conviction of the impracticability of realizing the requisite public advantage from it otherwise than by giving it Federal lodgment and administration. But though not anticipated or foreseen, these new and improved modes were as clearly within the purview of the Constitution as were the older and less perfect ones with which our ancestors were familiar, and there being no doubt entertained either on this point or as to the obligation of the Government to lay hold of the best and most rapid methods of transmission which the improvement of the age puts in its reach; steam power commended itself at once to adoption and has long been extensively employed both on land and water for the carriage of the mail.

"It is not without full reflection that the committee insist on the principle that it was the duty as well as the right of the Government thus to avail itself, even at heavy additional expense, of the powerful agency of steam, for the purpose of accelerating the mails. It would have been a gross and manifest dereliction to have permitted that vitally important concern, the transportation of the mail--a concern so anxiously intrusted by the Constitution to Federal authority—to lag behind the improvements of the age, and to be outstripped by the pace of ordinary travel and commercial communication. Such is the view which the Post Office Department takes of its own obligation and upon which it habitually acts. To be outstripped by private expresses is deemed discreditable to the department, injurious to the general interests of the country, and a thing therefore not to be permitted.

"This great and fundamental principle upon which the department acts (of not being outstripped in the transmission of correspondence and intelligence) led necessarily to using the steam engine in the service of the postoffice, and it must and will lead with equal certainty to the adoption of any other newly discovered agency or contrivance possessing decided advantages of celerity over previously used methods. The same principle which justified and demanded the transference of the mail on many chief routes, from the horse-drawn coach on common highways to steam-impelled vehicles on land and water, is equally potent to warrant the calling of the electromagnetic telegraph—that last and most wondrous birth of this wonder-teeming age—in aid of the post office in discharge of its great function of rapidly transmitting correspondence and intelligence."

If these strong words of wisdom, and the farsighted prophecies of Prof. Morse, and the stirring appeals of Henry Clay had been heeded there would have been no telegraph question to-day, the great Wall Street monopoly would never have been born, and the people would not have had to give 50 years of unsuccessful effort to the purpose of getting their will and their rights enacted into law in the shape of a postal telegraph.

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[1] S. Rept. 577, pt. 2, p. 4.
[2] S. Rept. 242, 43-1, p. 6.
[3] H. Rept. 187, 28th Cong., 2d sess., pp. 1-3.

CHAPTER II.—EVILS OF A PRIVATE TELEGRAPH.

INSUFFICIENT FACILITIES—RURAL DISTRICTS NOT SERVED—EXORBITANT CHARGES—AIM IS NOT SERVICE BUT DIVIDENDS.

SECTION 2. The evils of our present telegraph system are manifestly great. In the first place a large part of our people have no telegraphic facilities. A private company selects the best districts, builds its lines where the traffic will be large, and leaves the more thinly settled portions of the country without any service at all. A public enterprise, on the contrary, does not chiefly aim at dividends, but at efficient service of the public as a whole. The difference it strongly illustrated by the contrast between the Western Union and the post office; the former has 22,285 offices, the latter 75,380.[1] The policy of the post office is the true one. Farmers and ranchmen are a benefit to the whole community. It is not their fault that it costs a little more to send a message 200 miles than 100. Distance is an accident entirely independent of the merit or demerit of the individual, and the burden of it should not be allowed to fall upon any individual, but should be borne by society. If any difference is to be made, it ought to be in favor of the country districts, not against them, for it should always be an object of solicitude with the statesman to add to the advantages of country life, so as to counteract, as far as possible, the tendency to overcrowd the cities.

In the second place the rates are very high—so high that the telegraph is beyond the reach of the majority even of those who live in the favored localities where the companies condescend to open their offices. The private telegraph charges of America are more than double the public telegraph rates of Europe.[2]

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[1] The offices of rival telegraph companies are not included because they are mere duplications and do not represent new localities supplied with telegraph facilities; indeed, the figures 22,285 and 75,380 do not disclose the full superiority of the post office in respect to universality of service, because the 22,285 telegraph offices include all the offices in the cities, where it is often the case that a considerable number of telegraph offices are maintained in the district served by one post office—the whole cluster of telegraph offices being really entitled to count only as one in a fair comparison of the extent of country and population served by the telegraph and the post office respectively.

[2] Telegraph rates in this country are 25 cents to $1 for 10 words and 2 to 7 cents for each word in addition. The night rates are somewhat less; for example:

TABLE II.

From—	To—	Day.		Night.	
		For 10 words.	For each extra word.	For 10 words.	For each extra word.
		Cents.	*Cents.*	*Cents.*	*Cents.*
Boston	Worcester	25	2	25	1
Do	New York City	25	2	25	1
Do	Philadelphia	25	2	25	1
Do	Chicago	50	3	30	2
Do	Denver	75	5	60	4
Do	San Francisco	100	7	100	7
New York	Chicago	40	3	30	2

In Europe the usual rate is about 10 cents for 20 words and one-half a cent to a cent for each further word (H. Rept. 114, p. 1, Switzerland; p. 2, Belgium; p. 4, France). See also Blair committee, vol. 2, p. 982, and Prof. Ely in December Arena, 1895, p. 50. In Belgium the rate for additional words is less than one-half a cent each, being 2 cents for each 5 words (Tenth Census, vol. 4). In Great Britain the rate is 6 pence for 12 words and one-half pence for each added word (Postmaster General's Report 1895, p. 35). In France the charge is 10 cents for 20 words and 1 cent for each further word regardless of distance, except that messages to the French possessions in Africa pay 1 cent a word from the first word—20 words 2,000 miles for 20 cents (Tenth Census, vol. 4; H. Rept. 114, p. 4; S. Rept. 577, pt. 2, p. 22.) The ordinary charge per message in Germany is 12 cents (Prof. Ely in Arena for December, 1895, p. 50). The 20 words include address and signature, which President Green says will average 7 words, leaving 13 words clear message for 10 to 12 cents, with additional words at the rate of one-half cent to 1 cent a word, as against 25 cents for 10 words and 2 to 7 cents per word in addition. The average charge per message in Great Britain is 15 cents, less than half the average in this country. A comparison of average tolls, however, does not do full justice to the low-tariff country, because low rates increase the length of messages, as was clearly shown by the history of the B. & O. Co., the average of whose messages under the 10-cent rate ran up to 16 words (Bingham hearings, p. 76, testimony of D. H. Bates).

A comparison of city rates leads to the same result. In Boston a city message costs 20 cents plus 1 cent per word beyond 10, or 90 words for a dollar. In Berlin the charge is 5 cents (initial fee) plus one-half cent a word, or 190 words for a dollar, which is more than double the Boston service for the same money after subtracting the 7 words for address and signature.

The Western Union is no better off when we compare its press rates with those across the sea. President Green told the Senate Committee on Post Offices and Post Roads that the press rate was 6¼ cents per 100

The Western Union has endeavored to overcome the force of this tremendous fact by asserting that the rate is a matter of distance and that the distances are greater here, and tables of distances and charges were presented to committees of Congress for the purpose of proving the assertion. Unfortunately for the Western Union the Washburn committee consulted geographies and telegraph maps and found that the length of telegraph routes between the cities of Europe was strangely minified in the Western Union statement, while the distances between American cities were mys-

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words. (S. Rept. 577, pt. 2, p. 23.) Like most of his statistics this does not agree with the facts or with the rest of his testimony. Some papers in large cities where there are a number to divide the expense of the same dispatch may get part of their news for 6½ cents a hundred words, but that is not the average rate paid by newspapers throughout the country, much less the average rate received by the Western Union per message of 100 words, which is the question at issue now. On the very same page, 23, the same President Green illustrated the accuracy of his statement by saying: "We charge the New York Associated Press about 2½ cents a word from New York to New Orleans, and one-eighth of a cent for each drop (22 of them), so that they get 1,500 words a day for about $1.87½ at each of those places." One dollar and eighty-seven and a half cents for 1,500 words is 12½ cents per 100, instead of 6½ cents. But even this is not correct. Counsel for the people in this case went to the office of the superintendent of the Western Union and inquired about press rates, saying he had seen the above statement about a drop rate of one-eighth of a cent a word between New York and New Orleans. The answer was: "I wish you'd tell me about those rates. We never heard of them. Our press rates are uniform all over the country, two-thirds of a cent a word in the day time and one-third of a cent at night. Several people have come in just as you have and asked abo ut a drop rate of one-eighth of a cent. But we don't know of any such rate."

"The B. & O. may have sent messages at such rates some time," said a clerk.

"No," said the superintendent, "they never sent messages as cheap as that."

Counsel also sent an agent to the State Street office of the Associated Press. They said they rented wires, but this service cost even more than ordinary newspaper work because the telegraph company thought 10 papers could afford to pay more than 1. In general, newspapers had to pay two-thirds of a cent a word, drop message or terminal just the same, for you have to have an operator at Worcester or any intermediate point, to take off the dispatch just the same as at the terminal, and the operator is the main item. The basic rate to the Associated Press is $1.20 per hundred words day, and 66 cents night, or double the ordinary press rate, but in practice the Associated Press pays this rate only on messages (perhaps 10 per cent of their business) sent to the Associated Press from correspondents in places to which no leased wires run. On messages sent from the Associated Press offices to five or more points the rate is 25 cents per 100 words for each point, or $1.25 for the same 100 words sent to five points, $2.50 if sent to 10 points, etc. Practically all the outgoing business, aside from leased wires, is done at this rate. But the bulk of associated work, both incoming and outgoing (about 80 per cent of the whole business) is done on leased wires, for which the association pays $14 a mile per year for night use, and $24 a mile per year for day use.

On the aforesaid page 23, President Green says: "We sent 5,200,000 words of press sent; 200,000 messages of 30 words" (it should be 173,333 messages according to the arithmetic I studied), "and we got $1,800,000, so that we got about 20 cents per message of 30 words sent" (over $10 per message according to my arithmetic), "but the amount delivered was 605,474,000 words, which, divided by 30, makes over 20,000,000 messages delivered" (he did get that right). "Now, $1,800,000 for 20,000,000 messages would be 9 cents per message of 30 words delivered, or 30 cents per 100 words delivered, including drops and terminals." Even this is below the truth according to the statements of the Western Union superintendent and the Associated Press, which are 66 cents per 100 day, and 33 cents night. P. B. Delany, the famous telegraph inventor, estimates the average press rate in this country at 50 cents per 100 words (see Ch. XV, 9).

In Great Britain the press rates are 20 cents for 75 words day, or 100 words night, with a drop rate of 4 cents per 75 day, or 100 night. These extremely low rates result in an average charge of less than 8½ cents per 100 words—a press tariff which is about one-fourth of ours and is too low to cover the cost. In 1876 the chief of the telegraph estimated the loss on press dispatches at 4½ cents per 100 words, which would give 13 cents as the real cost per 100 words. A committee of Parliament, investigating the matter, reported that they could not find evidence of so great a loss, but met with considerable evidence to the contrary. In 1895, however, the postmaster general estimated the loss on press matter at a figure which would make the cost per hundred more than double the above estimate of the telegraph chief. The postmaster general does not explain the grounds of his statement, but merely places the loss at a lump sum (£300,000). The whole probabilities in the case indicate that the earlier estimate of the telegraph chief is much nearer the truth than the guess of the postmaster general made in the midst of a statement of the difficulties under which the telegraph department had labored, whereby its inability to pay interest on the telegraph debt obtained an explanation.

In Germany telegraph lines are leased for press purposes at the rate of $4.80 a day (7 a. m. to 9 p. m.) and half rate, or $2.40 per night; this is for a Morse line. A Hughes line rents for $9.60 a day and $4.80 a night. The Hughes system has double the carrying capacity of a Morse line in the same time (Tenth Census, vol. 4). If 1,500 words were sent over a Morse line the cost would be 32 cents per 100 words by day line, and 16 cents per 100 by night. If there were 22 drops, as in President Green's New Orleans illustration, the average cost for each town or city served with the news would be about 1 cent per 100 words for rent of the telegraph line.

To rent a line from the Western Union costs (at the lowest rates I have seen anywhere stated) $20 a mile for a day line, and $10 a mile for a night line, about $25,000 a year or $70 a day for a line from New York to New Orleans. With 1,500 words a day the cost would be $4.66 per hundred words by day, and $2.33 per hundred by night, or an average cost for each town of about 15 cents per 100 for rent of the telegraph line. A line from Boston to New York costs $4,500 a year, or $12 a day, and one from Philadelphia to Chicago costs $14,000 a year, or $40 a day. The company supplies only the line and the instruments; the lessee must find the operators, clerks, etc., and perform all the labor of collection and transmission.

In Germany the rental is not by the mile but by the line—the rate being averaged for long lines and short ones, so that a group of papers in a distant part of the Empire pays no more for its news over a rented line than a group of papers near the capital.

Looking back over the facts set forth in this long note it is no wonder that Postmaster General Creswell declared "the average rates here to be 1½ to 4 times as high as those of Europe," including Russia, Turkey, and all; nor that Gardiner G. Hubbard, one of the highest authorities in the country, told the Senate Committee on Post Offices and Post Roads that "rates are twice as high here as in England" (S. Rept., 242, 43-1, p. 25). Rates have fallen on both sides of the water since that report was made, but the statements it makes are still true, as the facts of this note abundantly prove.

teriously larger than those set down in maps and geographies. Here are some examples:

TABLE III.

From London to—	Telegraph distances.	
	Western Union statement.	Truth in miles.
	Miles.	
Dover	50	82
Plymouth	190	246
Paris	200	313
Rheims	250	400
Hamburg	380	556
Munich	540	800
Berlin	560	722
Prague	600	958
Madrid	750	1,225
Rome	850	1,349
Naples	950	1,510
St. Petersburg	1,160	1,806

Not one single distance is correctly stated. It is necessary in nearly every case to add at least one-third and often more than one-half of the stated distance to obtain the real distance. The sum of the stated distances was 15,724 miles, and the sum of the real distances was 22,578 miles, or almost one-half more than the Western Union's statement. To show the falsity of statements about American routes it was not even necessary to disturb the dust on the geography—the statement was its own refutation; for example, the distance from Memphis to New York was placed at 2,000 miles, while in other tables of the same Western Union testimony the distance was said to be 1,000 miles. So the distance from New York to Chicago was placed at 750 miles, and to Galena at 1,400 miles, though Galena is only 185 miles from Chicago. Substituting the true distances in the comparison of telegraph charges in Europe and America, the committee obtained very different results from those of the Western Union statement. The rates and distances from Paris to 30-odd cities all over Europe were placed in one table; a similar table was made with Berlin as a center. For the United States a table was made of the rates and distances from Washington to 30-odd of our chief cities having distances almost identical with those in the tables of Paris and Berlin. The conclusion of the committee from these tables, together with the corrected tables of the Western Union statement (rates and distances from New York to 61 American cities, and from London to 29 cities in all parts of Europe, the cities in each table being chosen by the Western Union), was that the rate per mile in Europe was less than half the rate per mile in America. And the rates compared were for internal traffic in the United States, and for international traffic in Europe. The cost of international communication is more than the cost of internal communication for an equal distance, because the receipts have to be divided among two or more nations each of which desires nearly or quite as much return as for an internal message, and the division itself entails additional expenses of bookkeeping, etc. When internal rates in Europe are compared with internal rates in America, mile for mile, the contrast becomes more glaring than ever; the committee found that the rate per mile in England was less than one-third the rate per mile in the United States, and in France less than one-fourth of our rate, mile for mile.[1] A substitution of present rates in the Washburn table shows that substantially the same relations still exist between our rates per mile and those of Europe.

[1] For all the facts of this paragraph see the tables prepared by the Washburn committee, H. Rept. 114, pp. 57–62, and the discussion on pp. 29–32. As a matter of fact, distance has little to do with the cost of telegraphing. The Western Union's reports show that the cost of maintaining the lines is only about one-tenth of the total cost of a message (2 or 3 cents a message), so that even if our distances were double those of Europe, as the Western Union would have us believe, still it would not be justified in doubling the charge on that account, since the increase of cost over Europe due to doubling the distance would be only one-half the whole cost due to our entire distances, or one-twentieth of the total cost of a message, or 1 to 1½ cents per message.

Postmaster General Creswell also examined this matter of distance very carefully, and in his report of Nov. 15, 1872, p. 24, he says: "The tables (Teleg. 4) give a comparison of telegraphic tariffs in Europe with those in the United States, as regards distance, showing the lowest average rate per mile on 32 messages sent from Washington to points east of the Mississippi River, to be higher than the highest average rate per mile abroad (that in Russia), and the average rate per mile on 96 messages here to be from one and one-half to four times as high as those of Europe, notwithstanding the greater distances in this country."

Driven out of this defense of distance and finding their assertion that the service is cheaper here than in Europe no longer tenable,[1] the Western Union affirms that the reason of cheap service over there is to be found in the low wages paid to telegraph operators. President Orton declares: "If we could be provided with operators at the rates paid for such service in Europe I would undertake to render a better service at half the average rates now existing in Europe. I entertain no doubt of my ability to accomplish that result." [2] The committee, however, on the data furnished by the president, found that the average salary of operators in this country could not exceed $333, while in France, by President's Orton's own statistics, it was at least $430, or nearly a hundred dollars more than the Western Union average,[3] and yet the French telegraph tariff is only one-fourth of ours. In Great Britain the average pay of a telegraph employee was $360, according to the Tenth Census, volume 4, and it has been rising ever since. In Germany the average was $300. According to the same authority the salary of telegraph employees throughout Europe averaged $320 each for the year 1880. The president of the Western Union stated to the Blair committee that "the aggregate salaries from president down are (1883) between four and five millions a year," [4] and that the "number employed and paid by the Western Union Co. is about 25,000," [4] which would make the average salary $200, showing that European telegraph wages are 60 per cent higher than ours according to Western Union data. Even if the Western Union could reverse the result of its statements and intensify the reversal so that wages here should be made to appear twice as much as in Europe, still the defense would be no better off, for it claims that the American operator does twice as much work as the European,[5] so that the company could pay twice the European salary without making the cost per message any higher than across the sea; and if we place this statement as to superior efficiency alongside of the truth in respect to salaries, we should expect the cost of a telegram here to be only half as much per mile as in France instead of four times as much.[6] The truth is, as

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[1] Chairman Hill, of the Senate Committee on Post Offices and Post Roads, said to President Green, of the Western Union: "How can you say that your system is cheaper when France sends 20 words 2,000 miles for 20 cents and in several countries of Europe messages are sent for one-half a cent a word." Green: "When you understand that we pay more than twice as much to our operators as they do, and that material, except as to wood and coal, is higher, there is every reason why it should be higher here" (S. Rept. 577, pt. 2, p. 25).

Here is a complete backdown on the question of rates—an admission that ours are higher than Europe's, which the witness had formerly denied—and an attempt at defense on the ground of wages. As a matter of fact the average wages of telegraph employees are not as high here as they are in several of the countries of Europe where telegraph rates are most moderate, while the amount of work done per employee is greater here than in Europe (see the facts in notes 5 and 8 below). It is still as true as it was in 1874, that "rates are twice as high here as in England, and yet it costs us less to do the work" (S. Rept. 242, 43-1, p. 25, testimony of Gardiner G. Hubbard).

[2] Testimony of President Orton (H. Rept. 114, p. 137).

[3] H. Rept. 114, pp. 43, 129. President Orton told the committee that the salaries of operators in Europe were "less than one-half as much as similar employees receive here." Immediately afterwards he gave a table, on the surface of which it appeared that the French Government pays its telegraph employees below the grade of superintendent an average of $430. In the same speech President Orton put the amount expended for labor by all the telegraph companies of the United States at about $2,000,000. From the Western Union reports and other data the committee found the number of operators to be 6 000; so that even if the whole two millions had gone to the operators they would only have received an average of $333 each instead of $360, as would be necessary to make good Mr. Orton's assertion as to the superiority of our wages—a rate which would have amounted to more than five millions for operators' salaries alone, whereas Mr. Orton states the total expense of all companies for all purposes as four millions for the year under discussion. We shall see hereafter that Western Union statements about wages are entirely unreliable even when they prepare tabulated data respecting their own employees. Their president tried to convince Congress in 1884 and in 1890 that they paid their operators an average of $65 a month, but there was abundant evidence that the average was not much over half that sum, and Mr. George caught the president squarely in the net of self-contradiction by showing that on his own data the $65 average would make a total for labor of operators alone that would be several millions more than the entire reported expenditure for labor, to say nothing of other employees, whose pay if added would make a total twice the one reported by the company (see Blair committee, vol. 1, p. 908).

[4] Blair committee, Senate investigations on "Labor and Capital," vol. 1, p. 901.

[5] Blair committee, vol. 1, p. 890. Examination of Dr. Norvin Green, president Western Union:

Q. Comparing operator with operator, is the American operator superior to the English?—A. Undoubtedly he is.

Q. And does about twice as much work, I understand?—A. I think, taking them in the aggregate, that they do twice as much work as the Englishmen.

Even this is not the extent of our wonderful dexterity, at least in certain localities. When Mr. Orton was president of the Western Union he wrote to the Postmaster General that "the working force in New York does nearly four times as much in proportion to number as the working force in London" (S. Rept. 242, 43-1, p. 25).

[6] The fact is that the Western Union statements are not correct either in regard to wages or efficiency. The Tenth Census tabulates in vol. 4 the telegraph statistics of Europe and the United States for 1872 and for 1880. Postmaster General Creswell also tabulates the facts for 1868 to 1872 in his report for the latter year, p. 160. According to the census, 13,700,000 messages went over the wires in the United States and the employees of the telegraph companies numbered 10,000, giving 1,370 messages per employee. In Europe there were 46,797 employees and 55,265,298 messages, or 1,180 messages to each employee. In 1880 the number of messages per employee was 2,100 in the United States and 1,420 in Europe. (Many employees who devote more or less of their time to post-office duties are included in the European returns of employees.) These figures indicate that the companies here could pay about one-third higher salaries than Europe without raising the cost per message above the European rate. The tables show that in 1872 the average telegraph salary in the United States was $360 against $290 in Europe ($288 in the census

shown in the notes (1, 2, 4, 7), that telegraph wages are lower here than in many parts of Europe, while the amount of business done per employee is larger here than across the sea, so that the real cost of transmitting messages is lower here than in Europe—a state of things, however, which results from conditions not altogether creditable to us (see note 7).

Expelled from this defense of high cost, the company ventures one more plea in the hope of justifying its charges, viz, that Europe makes a deficit. This plea also has been investigated, and it was found that France (the country showing the strongest contrast to Western Union charges, and paying the highest wages) was nevertheless realizing a profit on its telegraph business of more than a third of the gross receipts.[1] It was further ascertained that England, Switzerland, Sweden, Prussia, Belgium, and other countries make a profit on their telegraph systems;[2] that Europe as a whole did the same,[3] and that the Western Union had ciphered out a loss for Europe by adding the cost of construction into the operating expenses.[4]

The truth is that rates are higher here than in Europe because private enterprise aims at dividends while public enterprise is satisfied to serve the people about at cost. The contrast is finely illustrated in the case of Great Britain, the 18,000,000 messages sent in 1873 under public ownership costing the public just what 9,000,000 messages would have cost under the displaced private ownership,[5] and in 1886 and 1887 after the further reduction in 1885, it cost the people only a trifle over six-tenths as much for each million messages as in 1873–74, and about three-tenths as much as in 1869 under private ownership.[6] How different this record from that of the Western Union Co., which has frequently raised rates, at the very time when the cost of sending messages was rapidly diminishing,[7] and has not reduced them at all except under

figure, $291 the Postmaster General's) and in 1880 the average telegraph wage was $327 in the United States and $320 in Europe—a very creditable increase in Europe and a considerable fall in America—and this was was prior to the reductions which constituted a part cause of the great strike of 1883. The reduction of wages here and their rise in Europe has continued down to the present time, so that now (1895) the average is about $300 in the United States and $350 in Europe, with about one-third more messages per employee here than in Europe—wherefore the indications are that so far as labor is concerned the telegraph service can be performed here at rates one-third lower than in Europe, since our companies receive one-half more service for $1 expended in wages than the European telegraph systems. (This would much more than offset any possible difference of distance even if it existed to the full extent of the Western Union's falsified tables; see note 2.) It must be kept in mind that the differences in "efficiency" above mentioned are not to be taken in disparagement of European workers. Individual quickness and aptitude constitute but one element in the problem. The number of messages per worker depends, on the whole, much more upon the density of the business, the hours of labor, and the distribution of offices and employees than upon any differences in individual industry or capacity. This is clearly shown when we examine the subject in detail. For example, in 1880 France had 1,925 messages for each employee, Great Britain 2,625, and Russia only 760; in the United States the average was 2,100 for the entire business—2,750 for the Western Union, but for the companies outside of the Western Union it was only 565 messages per worker—considerably less than even the snowy wastes of Russia have to show—so that it is not a question of the superiority of the American citizen. The French "efficiency" is undoubtedly considerably higher than the census figures above given, for two-thirds of the employees constituting the divisor in the calculation are engaged more or less of their time in the postal service aside from the telegraph. The Western Union is fond of tickling the ear of Congress and flattering the patriotism of the people with all sorts of complimentary statements about the efficiency of their service, but the cold fact is that the Western Union obtains its large percentage of messages per worker, first by selecting the localities where business will be more dense instead of sending the telegraph into every district, as in many of the nations of Europe, and second, by working its employees very long hours.

[1] S. Rept. 577, pt. 2, p. 26; see also H. Rept. 114, p. 4.

[2] H. Rept. 114, pp. 2, 5, 24, 88. The average yearly profits for a period of 5 years were $2.58 per mile of wire in France, $4.82 in Prussia, $8.27 in Belgium, $12.26 in Switzerland. For the English profits see note 12 in Part I of this discussion.

[3] H. Rept. 115, p. 4, middle. See also the table of European statistics given to the Bingham committee by President Norvin Green in 1890, which shows a million surplus for the 18 nations whose receipts and disbursements are given. (Bingham hearings, p. 39.)

[4] H. Rept., 115, p. 4, middle.

[5] S. Rept. 242, 43-1, p. 9.

[6] Forty-first Report of English Postmaster General, 1895, and Mr. Morley's Returns to the House of Commons, Feb. 11, 1895.

[7] H. Rept. 6, 42-3, (1872) p. 3, where the Committee on Appropriations tabulate some of the changes in the Western Union tariff. Here are a few specimens:

From New York to —	Rates.	
	1852	1868
Cleveland	$0.50	$1.00
Buffalo	.40	.75
Cincinnati	.75	1.00
Providence	.20	.30
St. Louis	1.45	2.00
New Orleans	2.40	3.25

Again the reports of the Western Union show that from 1887 to 1890 the average charge increased 2 cents per message, while the average cost decreased half a cent per message, and the admitted profits of the company rose from four millions (on seventeen millions receipts), to seven and one-third millions (on twenty-two and one-third millions receipts), or from 23 per cent to 32 per cent of the gross receipts. Perhaps the most striking instance of the solicitude of the Western Union for the public welfare is the case described on page 53 of the second part of S. Rept. 577, in which the Western Union swallowed a cable company and then proceeded to make the rates eight times as high as they were before the combine.

compulsion of competing companies or the fear of an overpowerful agitation for a public telegraph.[1] One of the most significant facts of the Tenth Census is the statement in the fourth volume respecting the profits of the telegraph service—"the per cent of profit to cost is 2.9 per cent in Europe and 29.5 per cent in the United States"—a tenfold profit without going below the surface of the Western Union returns. We shall have occasion hereafter to dissect the said returns, and we shall find that the real profit is far greater than the reported profit; there is reason to belive that it has been as high as 414 per cent in a single year—i. e., 414 per cent on the real investment.[2]

To go more fully into the subject: The real reasons why rates are too high in this country are three—needless expense, illegitimate expenses, and overgrown profits. Underneath and behind all these is the reckless power and greed of a great corporation left free to act by inert and conspiring Congressmen; this is the underlying, ultimate cause that produces needless and illegitimate expenses and unjust profits which are the immediate causes of excessive rates. We can not expect a private company to avoid the wastes incident to competition or the effort to guard against it, which not only makes the cost of transmission greater than it need be, but also entails many needless expenses entirely aside from the work of sending messages and maintaining the lines—only a national telegraph system can avoid such losses; neither can we expect a private corporation to do business without a profit—only the Government or a body of philanthropists will do that; but we have a right to expect that even a private corporation will be satisfied with a fair profit on the actual investment, and that it will not falsify its accounts by incorporating in its statement of operating expenses such alien items as the cost of new construction, of buying up rival lines, of lobbying city councils and legislatures, of paying exorbitant rentals for leased lines, interest, profit, and running expenses all in one lump called a "rent," etc., in order to make the cost of sending messages appear much greater than it is. That is, we have a right to expect this if it is reasonable to expect a private corporation to deal honestly with the public, which some may believe to be doubtful, while others who understand corporation life from the inside, or from close observation, will hardly think the subject open to question.

There is every reason to believe that telegraph rates could be reduced in this country to half the present charges and still leave a good margin of profit. The Baltimore & Ohio Co. had a 10-cent rate for a long time on 19 routes and made a profit on the business.[3] The Western Union itself has frequently made an equally moderate rate under the pressure of competition,[4] and even without such pressure it carries from New York to Bradford, between the oil exchanges, a distance of 400 or 500 miles, at the rate of 10 cents a message.[5] The company has voluntarily accepted as "satisfactory" rates less than one-fifth of its ordinary charges, and covering a business amounting to many hundred thousand dollars a year.[6] And finally the Western Union carries many millions of messages for the press at an average of 30 cents per 100 words, or 6 cents for 20 words.[7] Turning to other sources of information, we find Postmaster General

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[1] S. Rept. 577, pt. 2, p. 52, reduction because of discussions in Congress; Blair testimony, vol. 2, p. 1272, Gould's war on the Western Union brought rates down. Bingham hearings, Green's testimony, p. 61, on the B. & O. war, saying: "We have never undertaken to crush out any opposition with low rates. They have generally been butting against us with low rates, and their general drive has been to compel us to buy them off on the basis of the damage they could do us. Some of them have been successful. The last formidable competitor we had was the B. & O. They came into the field to smash things and they did." D. H. Bates, manager of the B. & O. lines, says the Western Union did reduce its rates even below those of its competitor in the effort to crush it (pp. 73-74, Bingham hearings).

[2] I. T. U. hearings, 1894, p. 59.

[3] Bingham hearings, p. 21, Wanamaker's testimony, pp. 61-62, President Green's testimony saying the Baltimore & Ohio lost money, and p, 72-76, testimony of D. H. Bates, manager of the Baltimore & Ohio Telegraph Co., contradicting President Green and affirming that the Baltimore & Ohio did make a profit in spite of its low rates, and that the Western Union succeeded in buying up the Baltimore & Ohio lines, not because they proved unprofitable, but because disaster overtook the road in other departments and it sold its telegraph business as the most available source of realizing the funds necessary to right itself. The following are examples of the Baltimore & Ohio tariff: New York to Portland, Me., and intermediate points, 10 cents; New York to Philadelphia, Baltimore, and Washington, 10 cents; New York to Chicago, 15 cents; New York to St. Louis, 20 cents; to New Orleans, 50 cents; to Galveston, Tex., 75 cents. The average charge on all messages was 16½ cents (Bingham hearings, pp. 76, 62).

[4] For example, to keep pace with the Baltimore & Ohio (p. 62, Bingham hearings, testimony of President Green). To fight a railway line the Western Union reduced the rate from Jackson to Natchez via Vicksburg to 10 cents for 10 words and 1 cent for each further word (Blair committee, vol. 1, pp. 898, 900).

[5] S. Rept. 577, p. 59: "As they fix their own rates in this case they make money at those rates," p. 60. The company also carries from New York to Washington for 15 cents, p. 60.

[6] H. Rept. 6, p. 6. The signal-service business which would have amounted to $644,648 at ordinary rates (and $264,278 at the Government rate of 25 cents for 25 words over each circuit of 250 miles), was done for $123,662, "the rates being voluntarily accepted by the Western Union as satisfactory." That was 20 years ago, but as the cost of transmission has fallen still more than the company's charges, the contrast remains good.

[7] See note [6] above.

Wanamaker proposing that "charges in any one State and between any stations not more than 300 miles apart shall not exceed 10 cents for messages of 20 words or less, counting address and signature, nor over 25 cents for any distance under 1,500 miles, nor over 50 cents for any distance."

Q. "Upon what basis do you make the estimate of the rates you give us?" asked the Bingham committee.

WANAMAKER. "Largely by the rates that were current when there was competition, before the Western Union had absorbed the other lines."

Q. "Don't you think it would be possible to give a lower estimate?"

WANAMAKER. "I think it would. It would be such a benefit to get 20 words for 10 cents that I am afraid if rates were lower we would be in the same position as the English lines were in the beginning. They were overwhelmed with business. My own judgment is, upon consultation with intelligent experts, that a lower rate than this can be fixed, but in the initiative it seems desirable not to attempt too much."[1]

A syndicate of New York capitalists offered to accept Postmaster General Wanamaker's rates, building the lines to connect the post offices, supplying the operators, charging the rates above named and giving the Government 2 cents on each message to pay for its collection and delivery.[2] In the spring of 1895, Mr. Wanamaker told the counsel who is writing the People's Brief in this case, that he thought a uniform 10-cent rate for 20 words, regardless of distance, could be established in this country and yet leave the system self-sustaining. The experience of Europe, and the Baltimore & Ohio's success with low rates in spite of tremendous competition, leaves little room to doubt the correctness of Mr. Wanamaker's conclusion. Some facts would indicate the possibility of a still lower rate. At the annual meeting of the National Board of Trade in January, 1888, Hon. R. W. Dunham, of Chicago, described the operations of a telegraph company doing business between Milwaukee and Chicago, and of which Mr. Dunham was a stockholder. The company began with a charge of 1 cent a word, and within two years paid back to the stockholders 90 per cent of the money they had paid in. Then they reduced the rate to one-half a cent a word, or 5 cents a message, and after deducting expenses and 7 per cent on the capital paid back to the patrons of the line a surplus of over 40 per cent on the entire business. This went on for two years and then "we doubled our stock from $14,000 to $28,000, making it one-half water, and still the result is about the same, and from 25 to 40 per cent is still paid back on the 5 cents a message paid by the patrons."[3] Such results with a business all the time under fire of a fierce competition clearly prove the possibilities of a low tariff. This Milwaukee fact, together with the Western Union rates for signal service and press messages, points to the conclusion that a 10-cent rate would be more than sufficient even with present methods. And if recent inventions (to be hereafter described) were adopted, we would be able, according to very high electrical authorities, to send 1,000 words from New York to Chicago at a cost of 50 cents—a service for which the Western Union charges $31. With the saving effected by this new method, the further saving of rent, fuel, light, labor, etc., resulting from a thorough combination of the telegraph business with the post office, freedom from competition or the menace of it, the absence of watered stock, magnate salaries, dividends, lobby expenses, purchases of blackmailing schemes and rival franchises, etc. (all of which matters will be dealt with in detail in subsequent parts of this brief)—with all these savings and the enormous increase of business that would come with low rates,[4] it is possible that even a uniform 5-cent rate would be sufficient to sustain an up-to-date telegraph system owned and operated by the Government under good civil-service regulations and clear of debt. Whatever future experience may indicate as to the practicability of a uniform 5-cent rate after all the changes just mentioned are made, there is evidence enough already to warrant the belief that a Government telegraph would be entirely safe in beginning with a 10-cent rate.

It follows as a natural consequence from narrow facilities and high charges, that only a very small portion of our people are able to use the telegraph. President Green said that only a million people use the telegraph at all, and that "46 per cent of the total business is purely speculative—stockjobbing, wheat deals in futures, cotton deals in futures, pool room, etc.; 34 per cent is legitimate trade; about 12 per

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[1] Bingham hearings, 1890, p. 6, and Wanamaker's argument on the telegraph, p. 6, et seq. Mr. Wanamaker told the committee that his plans would save the people one-half the money they have to pay for telegraph service at existing rates (Bingham hearings, p. 14).

[2] Bingham hearings, testimony of John Wanamaker and J. M. Seymour. See also Wanamaker's argument, pp. 6, 7.

[3] Wanamaker's argument, pp. 69-70, and Bingham hearings, statement of F. B. Thurber, p. 25.

[4] See the third and fourth pages of note 6, Chap. I, of this discussion.

cent of the business is press business, and about 8 per cent of it is social." [1] A stronger argument for public ownership could hardly be made. It is an outrage upon civilization that one of the greatest inventions of all the ages should be permitted to be captured by corporate greed, kept out of reach of the great mass of the people, and reserved for uses in which the business of gamblers forms the chief part, and is even given priority of transmission over all other business, as is well known to be the case on the Western Union lines. A company that manages the telegraph with so little wisdom and public spirit as that ought not to be allowed to control it at all. Think of it—50 years since the lightning was harnessed to language and literature, and the people can not even yet avail themselves of the discovery; 50 years, and gamblers are still the main beneficiaries; 50 years, and Wall Street is still in possession. It is time a suit in ejectment were brought. It is time the telegraph were taken from the gamblers and given to the people. The electric current belongs to the people and must be made available for their use. Our 5, 6, or 8 per cent of social messages must be changed to 50 or 60 per cent as in France, England, Belgium, Switzerland, and other countries of Europe and Australia,[2] and our 46 per cent of gambling must be reduced to 20 per cent at the start, and afterwards, when partnership and mutualism have attained their perfect form, to zero absolute.

CHAPTER III.—CAPITAL, COST, AND PROFIT.

WATERED STOCK—COST OF CONSTRUCTION—OVERGROWN PROFITS, 300 PER CENT DIVIDENDS, ETC.

In the fourth place the Western Union defrauds the public by watering its stock. This process, so much admired by corporations of every class, renders it impossible to reduce rates to a just level, the level of a fair remuneration for the labor involved and the capital actually invested.

The people must pay a profit on a large amount of capital that never was invested and on another large amount that was invested but is dead, as well as on the capital really alive in the plant and entitled to sustenance. And if the people wish to buy the telegraph lines they will have to pay for all the millions of water just the same as if they represented a real investment. A corporation may spend a million building its plant, issue five millions of stock, put its charges high enough to pay dividends on it all, and if the Government exercises its power of eminent domain the courts will

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[1] Bingham hearings, 1890, pp. 41, 56. See also S. Rept. 577, pp. 15, 16, pt. 2, pp. 63, 244. President Green told the Senate committee in 1884 that "less than 1 per cent of the people used the telegraph;" "only half a million" used it; "about 5 or 6 per cent of the messages were social." President Green wished Congress to believe that the narrow patronage of the telegraph and the predominance of speculative use ought to prevent the Government's undertaking the business. His idea was based on the assumption that the use of the telegraph would remain the same under public ownership as it is now—an assumption which is conclusively proved to be false by the whole history of the telegraph in Europe and Australia (see note 6 to Pt. I and note 28 to this part of the present discussion). Even if the president's assumption were true it would not prove his case, for besides its lack of universality, there are many other evils of watered stock, overgrown profits, unjust discriminations, ill treatment of employees, interference with the freedom of the press, etc., for all of which the cure of public ownership is demanded.

[2] H. Rept. 114, p. 42; S. Rept. 577, p. 16; I. T. U. hearings, 1894, pp. 17, 24. "In Europe, where the cheap system prevails, two-thirds of all dispatches are on social or family matters" (H. R. 114, p. 42). "In Belgium when the rates were high only 13 per cent of messages were on social matters, at low rates 50 per cent." (S. Rept. 18); afterwards 63 per cent (I. T. U. hearings, p. 17). See further the third and fourth pages of note 6 to Pt. I of this discussion. Great Britain, with about half the population of the United States, sends about the same number of messages over the wires. France and Switzerland also send more messages per capita than we do.

Great Britain, 184 telegrams per 100 persons; Switzerland, 127 telegrams per 100 persons; France, 108 telegrams per 100 persons; United States, 95 telegrams per 100 persons.

A similar story is told by the contrast between the use of the telegram and the post office.

Great Britain, 1 telegram to 30 letters and postal cards; Switzerland, 1 telegram to 30 letters and postal cards; Belgium, 1 telegram to 23 letters and postal cards; France, 1 telegram to 23 letters and postal cards; United States, 1 telegram to 42 letters and postal cards.

Communication by telegraph in the best countries of Europe bears a much larger proportion to communication by post than in this country. This is not due to dearth of letters in Europe, but to better use of the telegraph, as the former table shows, and as is proved directly by the world's postal statistics which place the letters and postals per capita in England and France above the number here and in Switzerland about the same as here. In Western Australia and in New Zealand the letters and postals per capita are more than twice the number here, but counsel was not able to obtain precise data as to the use of the telegraph in those countries (see data in England's Postmaster General's Report, 1895, p. 35; Canada Yearbook, 1892, p. 300; Postmaster General Wanamaker's report, 1892, p. 874). Taking newspapers, etc., into account, the United States comes next to Great Britain in the use of the post office (Wan., 1892, p. 872); but considering the use of the post office for the purposes of personal communication, a considerable number of nations outrank us.

The change of relative use that has followed public ownership of the telegraph in England is as remarkable as any of the preceding facts. In 1866 there was 1 telegram to 37 letters in Belgium with a government telegraph, and 1 telegram to 121 letters in England with a private telegraph (H. Rept. 114, p. 7). Now it is 1 to 23 in Belgium and 1 to 30 in England—nearly 300 per cent relative gain due to the change from private to public ownership, supposing the gain in Belgium to represent the ordinary development of business without change of condition.

award the corporation five millions compensation, because the stock, or part of it, has been sold to persons who did not have anything to do with the overissue of stock and who are deemed by the law to be "innocent purchasers," although in nine cases out of ten they knew all the facts of the case. George Gould testified recently that corporations have to water their stock, or capitalists will not invest. This is not true of all capitalists, but the statement shows how innocent the majority of those who put their money into corporations really are.

The Western Union reports its stock at ninety-five millions, and bonds fifteen millions—one hundred and ten millions of capitalization. It claims 190,000 miles of line, 800,000 miles of wire, and 21,360 offices.[1] The figures, however, are false. Three-fourths of the offices are railway offices maintained by the railways. And the mileage appears to have been obtained by adding together the mileage of all the lines the Western Union has ever built, bought, or leased, a large portion of which has long since ceased to exist, and another portion, consisting of useless parallels constructed on purpose to be bought by the Western Union, remains on its hands as mere lumber. The total land plant in actual operation under Western Union control is probably less than 100,000 miles of poles and 400,000 miles of wire, and the larger part of this is not in good condition. The total value of the plant, offices and all, appears to be about twenty millions. Subtracting the fifteen millions of bonds we have five millions of property which the stockholders own after paying their debts—five millions as the total tangible basis of ninety-five millions of stock.[2] The evidence of all this is voluminous and convincing. Let us examine it:

"In 1860 a telegraph line was built from Brownsville, Nebr., 1,100 miles to Salt Lake City. Charles M. Stebbins, a well-known telegraph builder, constructed 475 miles on the eastern end of the line for $67 a mile. The western end was more expensive, being built, according to Mr. Stebbins, at a large profit to the contractors. The whole line cost $147,000, overcharge and all. On this expenditure $1,000,000 of stock was issued in the name of the Pacific Telegraph Co., which was owned entirely by men prominent in the Western Union. This Pacific company was then absorbed by the Western Union, 2,000,000 of Western Union stock being issued to pay for the 1,000,000 of Pacific stock, which was itself about all water. After this the stock of the Western Union was trebled, so that an original expenditure of $147,000 (half of which was itself a fraud) came to represent 6,000,000 of Western Union stock.[3] The Western Union is not satisfied with ordinary homeopathic dilution of capital; they believe in the high potencies. The most amusing part of it all to the Western Union folks is the fact that the expenditure of $147,000 was nearly three times repaid by a bonus of $40,000 a year from the United States Government for a period of 10 years[3]—$400,000 in all, or more than five times the actual value of the whole line—$400,000 plus $6,000,000 of stock, or $6,400,000 for a line that ought not to have cost and was not worth over $75,000—84 parts water to 1 of solid."

In 1884 the Senate Committee on Post Offices and Post Roads reported as follows on Western Union water:

"In 1863 its capital stock was only $3,000,000, and even of this amount (small as it seems in comparison with the present [1884] capital stock of $80,000,000) it is quite certain that at least five-sixths consisted of what is known in stock manipulations as water. The original line of the Western Union was from New York to Louisville via Buffalo, Cleveland, and Cincinnati, and was constructed at a cost of about $150,000. It early acquired, by purchase at very low rates, the property of embarrassed western telegraph companies owning lines from Buffalo to Milwaukee and from Cleveland to Cincinnati and built a line from Pittsburgh to Philadelphia, but even then its actual cash investment is affirmed, by those who have carefully investigated the subject, not to have exceeded $300,000."[4]

"In 1863 the stock was doubled by a stock dividend, and during 1863–4 five millions were added to represent extensions and purchases of new lines paid for in stock. The capital being thus swollen to $11,000,000, was in 1864 again doubled by a stock dividend, and thereby made $22,000,000. The year 1866 was memorable for new consolidations, the stock having been increased to $41,000,000 by the issue of $19,000,000 of new stock. Since 1866 the stock capital has been carried up to $80,000,000 partly by the issue of stock for the purchase of new lines, but mainly by the three following stock

[1] The figures of the text represent the reports for 1895. In November, 1899, the company reported in round numbers $97,370,000 of stock, $15,346,000 of bonds, $490,000 of sinking fund for redemption of bonds, 190,000 miles of line, 900,000 miles of wire, and 22,285 offices.

[2] Mr. Charles M. Stebbins told the Washburn committee in 1870 that Western Union stock had had 11 parts of water added to it (H. Rept. 114, p. 82), and it now seems to have 18 parts of water to 1 of solid.

[3] S. Rept. 577, pp. 4, 5. Speech of Senator Hill in the United States Senate, Jan. 14, 1884. The Voice, May 30, 1895.

[4] S. Rept. 577, p. 4, et seq.

dividends: In 1879, $5,060,600; 1881, $15,526,590 and $4,320,000; total, $25,807,190. It is not necessary to comment upon stock dividends, the nature and effect of which are well understood. In respect to the issues of stock for purchases of other lines, the prices paid have no relation either to the cost or to the earning capacity of the property. The purchases were influenced, in some cases, by the desire to get rid of competition, and in others by the fact that the persons controlling the management of the Western Union had large interests in the property purchased. The higher the prices paid, the greater were the gains of individuals in control of the Western Union." [1]

"In 1881 the Western Union paid $15,000,000 of its stock to buy the American Union Telegraph Co. and $4,080,000 of its stock for all the stock it did not already own of the Altantic & Pacific Telegraph Co. These purchases increased the Western Union property by only 3,975 miles of pole, 46,171 miles of wire, and 329 offices, the cost of which property must have been about $3,232,000. These purchases did not cause any accession to the business of the Western Union * * *. It is evident that the prices paid for competing lines were vastly in excess of either the cost or the earning capacity of the property acquired." [1]

"The swollen capitalization of the Western Union has created at one and the same time a cover, an inducement, and in some cases a necessity for excessive charges for telegrams." [2]

Here is the verdict of the National Board of Trade (report of executive committee Nov. 15, 1882):

"In 1858 the Western Union had a capital of $385,700. Eight years later the stock had expanded to $22,000,000, of which $3,322,000 was issued in purchase of competing lines, while nearly eighteen millions were issued as stock dividends. This was the first attempt to spread out an increased paper capital which should hereafter afford a plausible pretext for imposing on the public an oppressive tariff of charges. The next step was the purchase of the United States Telegraph Co., for which purpose $7,216,300 of stock was issued, an amount alleged to be five times the true value of the property. Next came the absorption of the American Telegraph Co. The stock of that company was almost as much inflated as that of the Western Union, and amounted, water and all, to $3,833,100, yet $11,833,100 of Western Union Stock was issued to get possession of that line.

"Then another illustration is furnished that in such enterprises competition always ends in combination and the public are ultimately obliged to pay for the construction of duplicate lines which are not needed and are only constructed for the purpose of forcing a divide of the enormous sums charged the public for a public service which is a natural adjunct of the postal service."

These are not the words of enthusiastic reformers, but of hard-headed business men, thoroughly familiar with corporation methods from inside knowledge. It would puzzle even our best reformers, however, to outtalk these business men on this subject of the telegraph. The report proceeds:

"Later the American Union, whose actual value was about three millions (franchise and all), was absorbed, together with the Atlantic & Pacific Co. (also worth about three millions, franchise and all), and in the consolidation the American Union was put at $15,000,000 and the Atlantic Pacific at $8,400,000, while in order to absorb in dividends the enormous earnings which they were levying on the public a further increase of $15,000,000 was made under the pretense of issuing stock to represent surplus earnings previously invested in the plant.

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[1] S. Rept. No. 577, p. 4, et seq.

[2] S. Rept. 577, p. 7.

President Green admitted to the Blair committee that the material property of the Western Union was not worth the stock (80,000,000 then), but said the company was worth that because of its franchises, patents, good will, and earning capacity. (Blair Rept., vol. i, p. 878.) Being questioned about patents he said that one-half the original capital of the companies went for patents; that one-half of the $41,000,000 of capitalization in 1866 represented patents, all of which had since expired. Here are the committee's questions and President Green's answers verbatim:

Q. In 1866, when the capital stock of the Western Union became $41,000,000, would it be fair to say that at that time one-half of that amount represented the patents and the other half the cash expenditure in the construction of the lines?—A. Well, in all the original capitalization of the companies one-half the capital was given for the patents; yes, sir, I will answer that question affirmatively; it would be fair to say that one-half the amount represented the patents, because of all the increase of stock that had been made by the Western Union the patentees got their share as well as anybody else, and up to that time Prof. Morse and Mr. Kendall had held on to all their stock received for patents.

Q. May it be that the other $21,500,000, or whatever the exact amount was, represented more than the actual cash expenditure in the construction of those various lines?—A. I think it did, sir.

Q. Would $10,000,000 have repaid the actual cash expenditure by telegraph companies in the construction of the various lines that existed in the country at that time, 1866?—A. I think it likely it would.

Q. Since that time all those patents which were in existence in 1866, and prior to that time, have expired, have they not?—A. Yes, sir; all the patents which were in existence in 1866, of every sort, have expired.

Even our street car companies write off the value of horses that have departed this life, but the Western Union is of a peaceful disposition and does not like to disturb its capitalization because of the death of its patents.

"Of course such evidence of what the public would stand in the way of telegraph charges was immediately followed by a new strike, in the form of a 'competing company'—the Mutual Union. This company was started on a basis of $600,000 capital, which almost immediately increased to ten millions without consideration, and as appears from proceedings in court by a stockholder, the directors made a contract with a Credit Mobilier construction firm, in which they were interested, by which four millions in bonds and about ten millions in stock were guaranteed for constructing lines and plant valued at three millions, and naturally, things being developed thus far negotiations were opened with the controlling spirits in the Western Union for another consolidation and stock watering."

Subsequently the consolidation was arranged and there was a further increase of stock amounting to fifteen millions on account of a plant the original cost of which did not exceed three and one-half millions, according to the sworn testimony of the officers of the Mutual Union.[1]

The following statement of Western Union transactions will give a good idea of their methods:

TABLE IV.[2]

Original investment	$150,000
Original capital (1852)	240,000
Capital stock (1858)	385,700
Brownsville line, worth $75,000, bought by issuing stock	2,000,000
1863 Western Union plant, worth $500,000, stock	3,000,000
Stock dividends (1863)	3,000,000
Total stock (1863)	6,000,000
Stock to buy other lines	3,322,000
Stock dividends	1,678,000
Total (1864)	11,000,000
Stock dividends	11,000,000
Total (January, 1866)	22,000,000
Stock to buy United States Telegraph Co., worth $1,443,000	7,216,300
Stock for American Telegraph Co., worth perhaps $1,500,000	11,833,100
Total (1866)	41,049,400
Stock dividends	5,060,000
Stock for American Union and Atlantic & Pacific Co.'s (worth together about $3,232,000 aside from the franchises) over $23,000,000, but as Western Union already owned over $4,000,000 of A. & P. the new issue was only	19,080,000
Stock dividends	15,000,000
Total (1884)	80,000,000
Stock for Mutual Union, worth about $3,000,000	15,000,000
Total stock (1895)	95,000,000

Here we have a clear record of sixty millions of stock representing less than ten millions of actual cost, and thirty-five millions of other stock representing a value not ascertainable in detail. This thirty-five millions chiefly consist of stock dividends, and most of it is probably water. The National Board of Trade evidently so regards it, and it stands to reason that a corporation which issues sixty millions of stock for ten millions of investment in the purchase department, would not come any nearer to solid issues in the dividend department.

If the same principle—I beg the world's pardon for using it in this connection—if the same rule has governed both departments, the present (1895) capital stock of ninety-five millions would represent a total expenditure of about $16,000,000, which, added to the fifteen millions of bonds,[3] would make a grand total of thirty-one millions

[1] Blair Committee, vol. 1, p. 120. See also as to all but the last step, Bingham Committee, Thurber's test, p. 26.

[2] See S. Rept. No. 577, N. B. T. and Blair Repts. above cited; also I. T. U. Hearings, 1894, the Bingham Rept., 1890, and the reports of the Western Union.

[3] The bonds have been issued at various times to cover expenses that could not be met with stock. It has sometimes required something more than Western Union stock to buy competing lines; and whenever hard cash has been needed in larger quantity than that supplied by the regular income, an issue of bonds has been resorted to.

as the actual cost of the Western Union system. Many of the lines, however, were utterly useless duplications built solely to be bought off by the Western Union,[1] and nearly all the lines are much depreciated in value, as we shall show pretty soon. Let us first determine what value the system would have if in good condition.

In the United States we have evidence from the Western Union and from outside of it.[2] In his History of the Electric Telegraph (1866) Mr. George Prescott, an officer of the Western Union Co., places the average cost of the Western Union's line at $61.80 a mile. As the company had 2 miles of wire to each mile of poles in 1866, the division of cost was probably about $84 for the first wire and $40 a mile for the second. In his report for 1869 President Orton says that $1,238,870 had been spent in three years for the construction of 7,968 miles of poles and 18,127 miles of wire—about $100 a mile of single-wire line, and $40 a mile of additional wire, or less than $70 per mile of wire on an average of the whole. For the year ending June 30, 1894, President Eckert reported the construction of 1,300 miles of new poles and 22,000 miles of new wire, one-half of it copper, at a total cost of $557,021, or $21 a mile of wire. In the report of October, 1895, President Eckert says that $574,639 was spent during the year in constructing 817 miles of new pole line and 15,784 miles of new wire, two-thirds of it copper, about $75 per mile of single line and $35 per mile of additional wire. Colin Fox, a Western Union builder, testified that he had built lines for the company from 1868 to 1876, constructing 500 to 800 miles of poles in Michigan (some of it two or three wire, but generally one-wire line), at a cost of $75 a mile, and $30 a mile of additional wire.[3] Col. John C. Van Duzer, superintendent of construction for the United States military lines, has built 4,000 miles of single-wire telegraph line in Texas, Indian Territory, New Mexico, Montana, and Dakota since the war, at a cost of $50 a mile for the materials; the troops did the work, which would have cost, according to Van Duzer, $25 a mile. An additional wire, he says, would cost $30 a mile.[3] Mr. Charles M. Stebbins, an experienced telegraph builder, told the Washburn committee that he had built many hundreds of miles of one-wire line for $50 to $75 a mile.[4] In 1884 President Green testified that the average cost of the Western Union lines per mile of wire was about $45,[5] a bit of frankness for which I am very much obliged to him. In 1868 Gen. Stager, the general superintendent of the Western Union Co., made a return under oath of the value of their property in Ohio to the commissioner of telegraphs for that State, in which he placed the worth of their lines at $35 per mile of wire.[6] During the year ending June 30, 1895, 2,684 miles of poles and 20,370 miles of wire that constituted the American Rapid Telegraph Co. has been bought by the Western Union

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[1] For example, the American Union and the Mutual Union. Jay Gould used the former company to fight his way to the mastery of the Western Union. Having control of the American Union he opened a vigorous war on the Western Union, reducing rates 30 to 60 per cent and damaging the old monopolists so much that they were finally compelled to take the new pirate for their master, buying his property at several times its value, and guaranteeing 5 per cent on Gould's Atlantic Cable stock, transactions which are said to have netted Gould fifteen to eighteen million dollars. (Blair Rep., vol. 2, p. 1272, testimony of D. H. Craig, a high authority in telegraph circles, and thoroughly familiar with Western Union history.)

[2] The cost of construction has been greater in Europe than in this country. In France and Belgium the government built telegraph lines at a cost of $65 per mile of wire, averaging about three wires on each line of poles. In Prussia the cost of three-wire lines was $70 per mile of wire. In Bavaria the cost was $71 per mile of wire. Even in the mountains of Switzerland and across the wastes of Russia the cost is said to be but $100 a mile on a two-wire line. For European statistics of construction see H. Rept. No. 114, p. 88 and S. Rept. No. 18.

[3] S. Rept. No. 577, p. 6.

[4] H. Rept. No. 114, p. 81. The details are as follows:

Lengths and location:	Cost per mile of one-wire line.
400 miles, from St. Louis to St. Joseph	$60
375 miles, from Jefferson City to Fort Smith	48
475 miles, from Brownsville, Nebr., to Fort Sedgwick, Colo.	67
(Had to haul poles in wagons 60 to 110 miles, and wire, insulators, etc., had to be so hauled 400 miles.)	
475 miles, from Cheyenne, Wyo., to Santa Fe, N. Mex.	75
"This line was built when labor and materials were at their highest. The wire, insulators, etc., had to be hauled 600 miles in wagons, and the poles had to be hauled long distances."	
75 miles, from St. Joseph to Brownsville	50
85 miles, from St. Joseph to Kansas City	65
80 miles, from Booneville, Mo., to Brunswick	60
The first line and the last two crossed the Missouri River.	

125 miles of second wire was put up from St. Louis to Jefferson City, at a cost of $25 a mile. There is some extra expense in running through the streets of eastern cities, but the long hauls in the West probably offset this fully and make the average about the same for the country as a whole. "Before the war a good single-wire line could be built for $50 to $60 per mile, and additional wires cost from $20 to $30 a mile. * * * I have to-day received a circular quoting the best galvanized telegraph wire at 9 cents. That is only a trifle higher than it was before the war, and it will very likely go to a lower figure in a short time, so that telegraph lines can be constructed as cheaply as before the war."

This was written in 1870. To-day the telegraph wire in ordinary use costs only about $9 a mile; the poles cost the Western Union $1 apiece (Tenth Census): 25 to mile, $25; insulators, etc., $2; labor, $25—$61 a mile of single-wire line.

[5] S. Rept., No. 577, pt. 2, p. 227.

[6] H. Rept. No. 114, p. 38.

for $550,000 in its stock at par, or $27 a mile of wire.[1] The actual market value of the stock payment was $22 a mile, and the Rapid lines were among the very newest and best the Western Union has ever bought. Let us apply these data to the 190,000 miles of line and 800,000 miles of wire claimed by the Western Union (1895).

TABLE V.

	Average cost per mile of wire.	Cost per mile of single line.	Cost per mile of additional wire.	Cost at same rate of the system claimed by the Western Union.
Geo. B. Prescott, Western Union	$62	$84	$40	$40,250,000
President Orton's Report, Western Union	70	100	40	43,400,000
President Green, Western Union	45	.....	.....	36,000,000
President Eckert's Report, Western Union	.....	75	35	35,600,000
Colin Fox, Western Union	.....	75	30	32,500,000
Col. Van Duzer, United States	.....	75	30	32,500,000
Chas. M. Stebbins, New York	.....	60	30	29,700,000
Gen. Stager, Western Union	35	.....	.....	28,000,000
The Rapid Telegraph purchase, Western Union	22	.....	.....	17,000,000
President Eckert's 1904 Report, Western Union	21	.....	.....	16,800,000

If the 100,000 additional miles of wire claimed in the 1899 reports are all bona fide, the additional value may be three to six millions.

While I was studying this matter of cost, Judge Walter Clark, of the North Carolina Supreme Bench, suggested to me the advisability of getting the valuation of Western Union property from the commissioners, treasurers, comptrollers, etc., in the various States and Territories. I drew up a circular letter and Mr. Flower had a copy of it sent to the proper officer in each State and Territory. Fifteen sent the desired information; some others replied to the effect that the facts requested could not be obtained. The successful reports are very interesting, and if it had been possible to get complete returns we should have discovered not only the value of Western Union lines per mile but also the real number of effective miles the company owns. Here are the results of the quest:

TABLE VI.

	Number of wires per mile of line.	Valuation.				Method of valuation required by law.
		Per mile of line, including all wire, office furniture, instruments, etc.	Per mile of poles with first wire.	Per mile of wire excess.	Per mile of wire average on entire system.	
Michigan	3	.....	$31.00	$16.00	$21.00	"True cash value."
Montana	3½	.....	42.00	10.00	19.00	"Full cash value."
Maine	6½	.....	.....	.....	35.00	"Value."
Missouri	.....	$43	.....	.....	.....	"Their value."
North Carolina	3¾	.....	30.50	8.50	15.00	"Real value," "True value.
New Hampshire	3	.....	.....	.....	39.00	"Full and true value."
Nevada	.....	52	.....	.....	.....	"True cash value."
Kansas	.....	.....	50.00	.....	.....	"True value in money."
Indiana	5	.....	.....	.....	[2] 71.00	"True cash value," franchise and all.
Iowa	3	.....	.....	.....	21.50	
Idaho	3	.....	50.00	12.50	25.00	"Cash value."
South Dakota	2	50	.....	.....	22.00	"True and full value."
Tennessee	.....	40	.....	.....	.....	"Cash value."
Vermont	2½	.....	.....	.....	28.00	
Wyoming	5½	.....	50.00	15.00	20.00	"Full value."

[1] U. S. Statistical Abstract for 1894, p. 363, and Western Union Repts., 1894, 1895.

[2] The valuation in Indiana includes the franchise as well as the physical plant. (See R. S. Ind., secs. 8484 and 8485.) In Massachusetts the assessment is based on stock values, and no attempt is made to estimate the worth of the lines. The same no dobut is true in some of the other States that failed to send the data requested.

See further evidence in Chap. XIV, 4 and 5.

From these returns it would seem entirely fair to take $40 as the average value per mile of poles with the first wire, and $15 per mile of wire excess. This would make the lines claimed by the Western Union worth about sixteen and one-half millions.

The truth is, however, that the claim of 190,000 miles of line and 610,000 miles of wire excess is not based on fact. The Western Union does not possess the system it claims. At the time of the Blair investigation the Western Union claimed 131,000 miles of line, 375,000 miles of wire, and 39,000,000 messages. D. H. Craig went carefully into the subject and proved to the committee that no such plant could be needed for the business reported—75,000 miles of good wire being ample to do the whole work over the territory occupied by the Western Union. He said the claim that 375,000 miles of wire and 131,000 miles of poles were necessary to transact the company's business was "a pure fiction," and that:

"The only possible way in which the Western Union can figure its plant at 131,000 miles of poles and 375,000 miles of wire is to assume that the company now uses all the old rattletrap lines it has bought or leased in its eagerness to wield a monopoly of telegraphing.[1] It is true, beyond dispute, that a very large percentage of the many thousands of miles of posts and wires, leased or bought from opposing companies, were utterly or nearly worthless for practical work when they came into the possession of the Western Union Co., and were bought wholly and solely to be rid of a rival company. Whatever number of miles of line the Western Union has in its plant, it is very certain that not more than 75,000 or 80,000 miles of wire and 25,000 to 30,000 miles of poles can possibly be required to cover all the territory the company occupies. Among the extensive telegraph plants absorbed by the Western Union during the past 10 years were the Pacific & Atlantic, the Southern Pacific, the Atlantic & Pacific, the Franklin, the Continental, the American Union, the Mutual Union, etc. Their many thousand miles of posts and wires were built parallel to the Western Union lines, but upon dirt roads, and therefore could have been of very little use to that company, even if they had been well built. It is well known, however, that every one of the lines except the Mutual Union (and doubtless that also) was built expressly to be sold to the Western Union and built in the cheapest way possible. Being intended for annoyance to that company, they ran as close as possible to its wires and therefore were of little practical use to the purchasing company. These seven companies drew from the Western Union not less than forty millions of its stock, though it could construct a range of lines at a cost of five millions that would be far more useful and valuable than all of those speculative lines." [2]

These are the words of a very high authority, an organizer of telegraph companies, thoroughly familiar with every detail of the business. His testimony is confirmed by Mr. Thompson, who told the Washburn committee that the Western Union did not really operate more than eighty to ninety thousand miles of wire.

The Hon. Gardiner G. Hubbard, a man who knows the telegraph business from beginning to end, told the Bingham committee (p. 13) that the Western Union "has a large number of wires that are not required. * * * They have probably twice as large a mileage of wires to maintain as is necessary, in consequence of the duplication of wires, bought of competing companies."

In 1887 the Baltimore & Ohio system handled about seven and one-half million messages with 52,000 miles of wire, while for forty-seven and one-third million messages the Western Union claimed to require 524,000 miles.[3] In 1889 Great Britain sent more messages with 175,000 miles of wire than the Western Union with its supposed 647,000 miles. In 1895 Great Britain handled 71,000,000 messages with 35,000 miles of line and 215,000 miles of wire, while the Western Union wishes us to think that it needed 190,000 miles of line and 800,000 miles of wire to handle 58,000,000 messages. These contrasts are interesting in connection with the testimony of the experts given above, but are not conclusive in themselves, because we can not estimate exactly the difference in the length of circuits nor allow precisely for the wires leased to newspapers, merchants, brokers, etc. The Western Union claims to lease 50,000 miles in this way. In England also many wires are leased out, but the mileage is not reported.

There is further evidence that the Western Union claims are too large, when we turn from the question of the number of miles in actual existence to the question of the condition of those existing miles of line and wire. Not only has the Western Union added together the mileage of the useless parallels it has absorbed, to make

[1] Mr. Craig's testimony is confirmed by the letter of G. S. Thompson, a prominent telegraph builder of New York, to the Washburn committee, in which he says: "It must be remembered that the estimat- (in its report) of the quantity of lines owned by the Western Union has been predicated upon a compue tation made by simply adding together all lines that have ever come into its possession. Many of these wires have now ceased to exist and others that are still standing are not in operation." (H. Rept. No. 114, p. 85.)

[2] Blair committee, vol. ii, p. 1277.

[3] Bingham committee, p. 76, D. H. Bates's testimony.

its plant appear two or three times as big as its effective working system really is, but it has allowed even its working lines to get considerably out of repair.

Mr. C. F. Varley, a distinguished English electrician employed by the Western Union some years ago to inspect their lines and report on their condition, said: "The insulating power of your lines is, on an average, but 20 to 25 per cent of the minimum allowed in England in the very worst weather." "The insulators, even when new, are poor." "Your insulation is horrible in hot weather, and is getting worse. Take in hand those lines which earn most of your money, the Boston and Washington lines, for example; reinsulate one-half or one-third of them, and I expect you will find them sufficient for your traffic."[1]

This opinion of Mr. Varley as to the condition of the Western Union lines is concurred in by the electricians of this country, and confirmed by the best of authorities, the operators who work them. If this be the condition of the best wires, what must be the condition of the poorest?[1]

Mr. Thompson said that at least one-third of the wires actually in operation would require immediate renewal if the Government should take possession of them.[2]

On the whole, it appears pretty clear that 80,000 miles of line and 300,000 miles of wire would be more than enough to replace the plant actually operated by the Western Union, including all the lines it leases from other companies, except the ocean cables.

For the whole land plant then, including the lines leased to and by the Western Union, 100,000 miles of poles and 400,000 miles of wire is certainly a liberal estimate. At the rates returned by the States of Table VI, the real plant would then be worth $10,000,000. And at the medium rates of Table V (75 and 35) the Western Union's own data, the real plant would be worth $21,500,000 if it were new.[3] The first is probably too small, as the full value of property is rarely returned to the State officials no matter how strongly worded the law may be, and the second is too large because the operative plant is not new nor in first-class condition. It is certainly safe to take off at least one-third for depreciation, which leaves the actual value of the lines not above fourteen and one-half millions.[4]

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[1] H. Rept. No. 114, p. 42.

[2] Ibid., p. 85.

[3] If the 100,000 miles of wire increase since 1895, as reported by the Western Union in November, 1899, are bona fide additions, the total tax value indicated by Table III would still be under twelve millions, and by the Western Union's own data in Table II the value would be twenty-five millions, leaving seventeen millions, perhaps, after allowing for depreciation. (See further, Ch. XIV, 4 and 5.)

[4] Senator Charles A. Sumner, of California, a practical telegrapher and an earnest student of this whole subject, said in 1888, that "the lines of the Western Union and Baltimore & Ohio together are not worth $15,000,000. And for $25,000,000 sufficient first-class construction can be had for a postal telegraph reaching every post office in the United States" (Bingham hearings, Thurber, p. 20). G. S. Thompson, after telling the Washburn committee that many of the lines bought by the Western Union had ceased to exist though their mileage was preserved in the company's reports, went on to say: "It is also believed that this company, could they dispose of their present lines and build new ones, would devise a system that would much more perfectly meet all requirements, using therein perhaps less than two-thirds of the material now in their existing lines. It is therefore our purpose to urge upon your consideration the propriety of basing all estimates upon the presumption of entirely new lines, built in accordance with the latest scientific improvements, located according to a carefully digested system, believing that such new lines thus constructed, covering an area much more extensive than now embraced in all existing lines of the Western Union, can be constructed for a sum of less than $10,000,000" (H. Rept. 114, p. 86).

Mr. Charles E. Buell, one of the most experienced telegraph-line managers in the country, wrote in 1885, "The entire property of the Western Union could be shown to be worth, not much, if any, over $10,000,000." (Sumner's speech in the House, Feb. 28, 1885, p. 6.)

Taking the reported mileage without questioning its accuracy, it has been estimated that the Western Union system could be replaced for twenty-five to thirty millions. "The entire Western Union plant can be duplicated for $25,000,000." (I. T. U. 1894, p. 39.) In the same hearing (p. 21), Gardiner G. Hubbard expressed the opinion that "A system substantially competing with the Western Union would cost twenty to twenty-five millions." John Wanamaker, taking the more conservative of the testimony before him, placed the cost of duplication with the new plant at $35,000,000. (Wan. argument, p. 5.)

Mr. Seymour, representing a syndicate of New York capitalists, told the Bingham committee that they estimated the cost of duplicating the Western Union plant at twenty to twenty-five millions, using No. 10 copper wire, which is better and more costly than the iron wire which constitutes the bulk of the system now. (Bingham Rept., 1890, Seymour's test., p. 8.)

John Campbell, a leader among telegraphers, told the Blair committee (1883) that it was "the general impression of telegraph operators that thirty millions is a very high estimate for the Western Union system" (vol. 1, p. 121); and the detailed estimates on which Mr. Campbell based his conclusion are higher than the cost shown by the actual records of construction cited in the text. Another witness before the same committee, Daniel S. Robeson, of New York, telegraph engineer and contractor, said he should charge $1,000 a mile for an 8-wire line, which is certainly high enough to yield a comfortable profit even for a New Yorker; and yet this same Daniel Robeson said that for $30,000,000 he would be willing to undertake to reproduce not merely the Western Union system, but the entire telegraphic facilities of the country, the whole telegraph system, Western Union and all, as set forth in the reports of the companies (Blair com., vol. 1, p. 306). And this thirty millions would include the contractor's profit, which was not meant to be small, as we can see by the gentleman's figures for an 8-wire line between New York and Chicago. One noteworthy circumstance about the testimony of the high-priced contractors is that they refuse to tell what the actual cost of construction would be, being unwilling to do more than state what they would charge, which leaves the listener in the dark as to their profit unless he has light from other sources.

One of the most amusing things in the history of Western Union affairs is the fact that the presidents have no idea what the plant did cost, so that when asked about it they have to compute the value, a process which produced results varying from twenty to one hundred and thirty millions during the same investigation and from the same president. (H. Rept. No. 114, p. 37.) President Green a little later stated in a

As for the other elements of the plant we have the testimony of President Green that the right of way cost the company nothing.[1] It forms no part of the investment; so far as it is an item at all it enters into the running expenses in the way of a rent paid by service. The patent values held by the company in recent years are said to amount to only about $16,000. The company reports 21,360 offices. But more than three-fourths of its offices are really railroad offices, furnished and officered by the railroads.[2] The Washburn committee (H. Rept. 114, p. 40) estimated the average cost of instruments, furniture, etc., at $80 per office. Instruments are much less costly now than when that report was made. Colin Fox testified that it cost about $25 to fit up an office with a new set of instruments. Idaho reports them now as valued at $3.60 a set. North Carolina reports the batteries, instruments, furniture, etc., the whole outfit of 286 offices, as worth $7,206 or $30 an office. Any one who will examine the little offices in stores, hotels, etc., will see that $30 to $50 would be ample to cover the contents of most of them. In a large city office, perhaps $1,000 may be needed, sometimes more. If we put the average throughout the country at $100 an office, to be on the safe side, the office investment of the Western Union will amount to about $500,000. The company claims $4,979,533 real estate. As we can not prove the incorrectness of this item we will allow it, and assume that it is all used as a part of the telegraph plant.

Adding all the items together we have about twenty millions as the real value of the Western Union plant.[3] Subtracting the fifteen millions of bonds, we have five millions left as the basis of ninety-five millions of stock—18 water to 1 of solid value not covered by the bond mortgage. (See Ch. XIV, 4 and 5.)

The bondholders own fifteen millions of the plant, and five millions is all the physical value that is left for the stockholders. After paying 6 per cent on the bonds the public should not be asked to pay the stockholders more than 6 per cent on the five millions, for that is substantially what they own of the plant above the mortgage, and they have no moral right to ask the public to pay interest on the franchise which was created by the public and is kept alive by its patronage. The expenses of the business, including depreciation, plus a fair interest on the value of their investment, is all they have a right to ask. The public contributed the franchise on which a value has been placed of about ninety millions out of a total of one hundred and ten millions, so that on the principles of partnership the public ought to get nine-elevenths of the profits.

This brings us to the fifth great evil of our telegraphic system, the unjust profits of the owners. Justice gives fair remuneration to labor, and a reasonable profit to the capital actually entering as a factor into present production. The ordinary corporation, however, cares nothing for justice.[4] It takes all it can get. For 1895

public address that the Western Union could not be duplicated for $150,000,000. What superb self-restrain must have been required to keep the stock down to $95,000,000!

When Mr. Sumner introduced his bill for a postal telegraph in 1885, stating that all the post offices in the country could be connected for twenty-five millions, the report was industriously circulated that the Western Union system alone was worth one hundred and twenty millions. When the inquiry began before the Senate committee the claim dropped to one hundred millions. When the statements came to be made in form for record by the reporters the estimate fell to eighty millions. Then an agent of the Western Union went over to the House committee and said the system was worth seventy millions—a spontaneous descent from one hundred and twenty to seventy millions; and finally the Senate committee reported that the Western Union lines were not worth over $30,220,960. (Speech of Hon. Charles H. Sumner in the House, Feb. 28, 1885, pp. 5-7.)

[1] "Our right of way did not cost us any money cash down; we pay for it by service to the railroad companies." (Dr. Norvin Green's testimony, S. Rept. No. 577, pt. 2, p. 227.)

[2] Bingham committee hearing of Mr. Thurber, testimony of Mr. Wiman, a director of the Western Union, p. 22. See to same effect, testimony of President Green, Blair committee, vol. 1, p. 881.

[3] And this includes all the land lines of which the Western Union is the lessee and which are not a part of the property of the company. The New York Mutual lines are put down at 60,000 miles of wire; the Northwestern Telegraph Co. and the Gold & Stock Telegraph Co., etc., are supposed to bring the wire leased to the Western Union up to about 100,000 miles. A considerable part of the stock of these companies is owned by the Western Union, but the portion of the property still outside of Western Union ownership is quite large, as is shown by the fact that the company still pays over three-fourths of a million a year in rentals for the land lines that are leased to it. If the value of these lines still outside of Western Union ownership were taken into account, it would be seen that the basis of Western Union stock is even smaller than appears in the text. It is not possible, however, to ascertain the said value with any accuracy, because we do not know how much of these particular lines remain standing nor their condition; and the rental is no guide, for a big rent on property owned by Western Union directors and leased to the Western Union is simply one way of hiding profits.

[4] Now and then there is a corporation with some lingering rudimentary ideas of justice; for example, the Chicago & Milwaukee Telegraph Co., referred to in Ch. II of this discussion, which ran two years on a 10-cent rate, paying back 90 per cent of their investment to the stockholders, then made a 5-cent rate, or half a cent a word, and after deducting expenses and 7 per cent on the capitalization, gave back the remainder of the earnings to the patrons of the company, said remainder amounting sometimes to 40 per cent of the gross receipts, and running continuously from 25 to 40 per cent of the entire business. It was wonderful for a corporation to give back to the patrons all above expenses and 7 per cent on the capitalization, and it would have approached complete cooperative justice if the capitalization had been true. But it was left at the original cost during the first two years of the surplus profit distribution, and afterwards it was doubled, although the original cost had been almost wholly repaid to the stockholders before the profit sharing began. Let us be thankful, however, for the record of a business corporation capable of manifesting so much of the mutualistic spirit, and hope that others may imitate and improve upon it. (For this story of the Milwaukee Co., see Bingham hearings, statement of F. B. Thurber, p. 25.)

the Western Union reports $6,141,389 profit, and $1,578,584 paid in rentals for leased lines, part of it for ocean lines, leaving about seven millions of profit for the land plant. Interest on bonds was $893,821, wherefore more than six millions remain as profit on less than five millions of property—the portion of the plant not covered by the bonds. One hundred and twenty per cent is a pretty good profit, but it is nothing for the Western Union. One year the dividends amounted to 414 per cent; the investors got their money back four times in one year.[1] During the war, when patriotic citizens were giving their lives and their money for the service of the public, the Western Union was squeezing the public with all its power and paying 100 per cent dividends a year,[2] not merely on actual investment but on the total stock, water and all. Since 1866 the receipts have been four hundred and forty millions, profits reported as such one hundred and thirty-seven millions,[3] which rises to one hundred and sixty millions with the profits put down under the head of rentals and to more than two hundred millions with the profits expended in buying rival lines that wouldn't take Western Union stock—at least, President Green tells us that the company has spent more than sixty-one millions in cash to buy opposition lines,[4] and as the balance sheets show that these sixty-one millions did not come out of reported profits they must have come out of unreported profits except so far as provided for by the bonds. There are other additions to be made on account of new construction put down to operating expenses.[5] It is impossible to ascertain precisely the sum total of Western Union profits; even if all the items were reported it would not do to be too sure they were correctly stated, for corporation bookkeeping is a very flexible affair. There seems, however, to be good reason to believe that at least half of the receipts have been profit. And these millions have in large part been received by men who put almost nothing into the plant. It is probable that the stockholders of the Western Union proper never paid in a half million dollars from first to last.[6] And John Wanamaker says that "An investment of $1,000 in 1858 in Western Union stock would have received up to the present time stock dividends of more than $50,000 and cash dividends equal to $100,000, or 300 per cent of dividends a year."[7] Think of it; getting your money back a hundred times in cash and 50 times more in good interest-paying property.

It is probable that the total amount ever paid by stockholders into the treasuries of all the companies composing the Western Union system does not exceed sixteen millions.[8] Of course there has been more money than that put into the plant, but it has come from the profits and the bonds. The system has been built up in four ways: First and least, with the money paid in by the original stockholders; second, with capital put into competing companies which have failed and been absorbed by the Western Union; third, with profits, after payment of dividends which have been used to construct new lines and extend the system; and fourth, with money borrowed on mortgage of the plant.[9] A reasonable merchant, manufacturer, or landlord is

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[1] S. Mis. 79, 1872-3. Statement of Hon. John Davis to the Committee on Post Offices and Post Roads, 1894; I. T. U. hearings, p. 59; see also, p. 4, and Wanamaker's argument, p. 5.

[2] Wanamaker's argument, p. 5.

[3] Down to 1900 the receipts amount to five hundred and fifteen millions; the profits reported as such, one hundred and eighty millions, and the total real profits probably about two hundred and fifty millions.

[4] Bingham committee, p. 65.

[5] "We have built from 10,000 to 20,000 miles a year of new line out of our earnings all the time" (S. Rept. No. 577, pt. 2, p. 218). Yes: out of the earnings, not out of the profits. The reports say that the new construction has been provided for out of the surplus, but when you turn to the balance sheet you find that it is not true; the construction is included in expenses and the surplus reported each year goes undiminished to the next.

[6] S. Rept. No. 577, pt. 2, p. 58. And see Bingham committee, testimony of Gardiner G. Hubbard, p. 5, where Mr. Hubbard says: "In 1858 the capital of the Western Union was $385,000. So far as my knowledge goes, and I believe I am conversant with the affairs of the Western Union" (the witness said he had every report the Western Union had ever issued, and he had evidently studied them carefully)—"so far as my knowledge goes, not one dollar of cash has been paid into the treasury of the company since that time."

[7] Wanamaker's argument, p. 5. Mr. Charles M. Stebbins, speaking of this subject, says: "At this time (about 1858) I think their expenditure had been about $250,000 to $300,000, but they soon after declared a dividend of more than enough to pay off their original investment in cash and quadruple their stock. After that I think all their investments were paid out of their earnings after paying dividends, averaging 8 per cent. They bought new lines, sometimes paying cash, but generally giving their own stock, making new issues as needed. * * * They bought many lines very cheaply by first ruining the value of the line by competition or other means. They got many lines for nothing by inducing railroad companies to pay all the expenses of construction and maintenance while the telegraph company received the benefits. They built other lines with the aid of subscriptions, to be paid back in telegraphing at high rates, after the completion of the line. They absorbed many lines by giving their own stock—stock which, as I have said, has had 11 parts of water added to it." (H. Rept. No. 144, p. 82.)

[8] Referring to this subject, Gardiner Hubbard said to the Hill committee: "I think there has been of actual cash put in either by the Western Union or by other companies about five millions." (S. Rept. No. 577, pt. 2, p. 58.) The highest estimate I have seen of the total amount paid in by all stockholders is that given in the report of the National Board of Trade for 1882, which says: "It is estimated by good judges that there has never been paid in by stockholders $16,000,000 since the beginning of the Western Union system, and that its present property represents simply water and the amounts extorted from the public to extend the lines besides paying dividends." (N. B. T., p. 11.)

[9] I. T. U. hearings, p. 16.

satisfied to pay for his property himself, and get 10 per cent profit on his capital, out of which profit or other capital of his own, he expects to make any improvements his business may require. The Western Union man, however, expects the public to pay for his plant and all improvements upon it, and give him 300 per cent a year besides. How long are you going to stand that sort of business, my brothers? And even this is not quite all: The Western Union man likes to get a bonus out of the Government when he can without awaking the people, and he has sometimes succeeded in getting a bonus that all by itself would pay five times the cost of the line for which it was given.[1]

Chapter IV.—Abuse of the Employing Power.

The sixth count in the indictment of the present telegraphic system in America is the illtreatment of employees and a general abuse of the employing power—child labor, overworked operators, long hours, and small pay for those who do most of the work, short hours and big pay for those who manage and scheme, less wages to women than to men for the same work, favoritism and unjust distinctions between men in the same service, a settled policy of reducing wages and increasing work, denial of the right of petition, the right of organization, and the right to consideration because of long and faithful service, fraud, oppression, merciless discharge, blacklisting, boycotting, breaking agreements, treating men as commodities to be bought at the lowest market price and thrown away like a sucked orange as soon as the company has squeezed the profit out of their lives—such are the items, or some of the items, under this vital count.

The employment of thousands of little boys 12 to 16 years old is a very serious wrong. These children ought to be in school, not in the street. One of the best things about public business is that it does not impose the burdens of toil upon childhood. In the post office the carriers are men, not boys. There is no better measure of the difference in the spirit of national enterprise and the spirit of a great private corporation than is to be found in the contract between the fine-looking men who act as messengers for Uncle Sam 8 hours a day on salaries of $600, $800, and $1,000 a year, and the little mind-starved, opportunity-cheated boys that act as messengers for the telegraph companies 10 to 16 hours a day on salaries of $2 or $3 a week.

The work of a telegraph operator is very exhausting.[2] He suffers from close confinement, cramped position, strenuous attention, and rapid work of brain and arm. President Orton, of the Western Union, testified that no operator should perform more than 6 hours' work per day.[3] Yet as a matter of fact the majority of operators are on duty from 12 to 13 hours,[4] and the day is often much longer than that. Victor Rosewater, himself an operator for many years, and for several years manager of the Western Union Telegraph Co. at Omaha, told the Bingham committee in 1890 that "At railroad stations 16 hours a day is a short day's work. I have worked 18 hours a day."[5] Hon. John Davis, after telling the Henderson committee

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[1] H. Rept. No. 114, p. 82; Bingham committee, Hubbard, p. 10; S. Rept. No. 577, pp. 4, 5, etc.; see notes 2 and 3 above. They also got a subsidy from the State of California. They gave some service in return for the subsidies, but of insignificant value; even if charged up at the high rates demanded of private patrons the said service would not amount to a quarter of the subsidies received. (Bingham committee, supra.)

[2] Testimony of operators, Blair committee of the U. S. Senate, vol, 1, pp. 116, 125, 187, 193.

[3] Id., 125.

[4] Id., 119, 156. In the large city offices 9 or 10 hours constitute a day's work, but elsewhere the day is from 12 hours up, and even in the city operators are not seldom obliged to work 13 and 14 hours a day (p. 150).

[5] Bingham Rept., Rosewater, p. 6. In spite of long hours, exhausting work, and small pay, the inventive operator sometimes finds opportunity for spasmodic amusement, as the following slightly embellished story, cut from the Telegraph Advocate of Nov. 13, 1896, may indicate:

"A TELEGRAPHIC TALE.

"A Twenty-eighth Street boy who thought to lassoo a trolley wire, and who was two hours 'coming to' after performing the office of conductor for several hundred dollars' worth of electricity, has taken a place in local scientific history. He has found that electricity, while a good thing to save for a rainy day, is a mighty poor thing to be yoked up with when it feels like exercising. There is a telegraph operator named George Clark, who lives somewhere on West White Street in this city, who could, if he would, tell that boy some other little truths about subtle fluid which bites like a serpent and stings like an adder. If the boy could only manage to get together with Mr. Clark and join him in a collaborated experience testimonial as to electricity as applied to the human form divine, the result would be some pretty interesting reading matter.

"Clark used to 'hold down' an office in Pocatello, and, being bothered half to death by thirsty tramps who wanted to drink his ice water, his mind ran into satanic channels, and so he attached a ground wire to the floor of the office and ran a connection over to the drinking cup. This sounds simple and profitless if you know nothing of electricity and the Pocatello climate.

"The first thing a tramp wants to do when he strikes Pocatello is to get a drink of water. So is the second thing and the third. For several days Clark had a nice, agreeable time with his wet floor and chained cup. He would respond with a cheering smile whenever a tramp asked for a drink, and would allow the man to get well settled back with a small Niagara rolling and surging down his throat, when he would tap his connecting wire upon the 'cut-out' and send a few casual train orders into the man's appetite. Now, it is not a pleasing

in 1894 about the overworking of railway engineers,[1] continued his testimony as follows:

"Telegraph operators, who, as you know, control the running of trains, are also overworked, and they are not competent for duty after a great loss of sleep. One train dispatcher said that he sometimes had to work 20 hours a day, but sometimes found himself obliged to take some sleep in the meantime, though he made it as short as he dared."[1]

Worst of all, the aim of the companies is not to lighten the burdens of their workers but to increase them. The victory of the Western Union in the great strike of 1883 gave the managers an opportunity for rearrangement which they improved to such purpose that Dr. Green, the president, is reported as saying:

"The several hundreds of thousands of dollars which have been lost in the strike I regard as the best financial investment made by the company. Hereafter Gen. Eckert tells me that he will get one-third more work out of a man for a day's service, and the economy of such a step will retrieve the loss in less than six months."[2]

One-third more work in a day, though the men were already suffering from overwork, and paralysis, consumption, early disability, and death were common among them.[3] Even Dr. Green admitted that "there are some instances where the operators work very hard,"[4] and the operators themselves declared that "The Western Union has always been short of help, and it generally makes one man do the work of a man and a half."[5] And this is the way the Western Union succeeds in sending more messages per employee than in the case in England or Germany.

The systematic overworking of employees was one cause of the great strike of 1883, in which the telegraphers demanded that eight hours should constitute a day's work and seven hours a night's work—very modest demands in the light of the sworn testimony of President Orton and the uncontroverted statements of the men themselves—

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thing to drink a hot, fervid, blue-tinted train order with sawteeth on it and a taste like the home of Belial, and on ordinary occasions the man would adjourn his thirst and whoop a few profound but inelegant remarks, and would then go away rather hurriedly. Gradually the fame of Clark's contrivance circulated, and trainmen neglected their work to watch for tramps who might care to drink a car report or a batch of commercial messages. Pocatello trainmen came to be the politest persons in the western part of the country, and there is a case on record of a freight conductor inviting a hobo to take a drink of water at Granger and hauling him some hundreds of miles to Pocatello before giving it to him with S. F. B. Morse trimmings.

"Only once did it ever occur that the apparatus failed to perform its proper function, and that failure indirectly resulted in the discharge of the operator. One day a Chicago tramp wandered in and asked the liberty of quenching a 2,000 mile thirst. Clark determined to rise to the occasion, and so turned the dispatcher's wire into him while he was engaged in his swallowing performance. The tramp quivered a little, but continued drinking. The trainmen who were standing by looked on in wonder, and Clark felt that his reputation was at stake. So he crossed the Pocatello-Salt Lake wire and let some market reports play against the inner lining of the drinker's stomach. The latter shrugged his shoulders and kept on imbibing, and in despair Clark centered all the other seven wires, including the overland press relay, down the fellow's throat with his drinking water. It was in vain. After some 10 minutes' steady drinking, the hobo sighed and said: 'Much 'bliged. Kinder brackish water—just a little. Makes me homesick. Makes me think of Kingsley's bar'l house down on Clark Street. Much 'bliged.' And with much of the telegraphic service of the Utah Northern secreted in his system the tramp went forth refreshed.

"The next day Clark received a note from the superintendent of telegraph stating that from tests made on the previous day it was found that he had interfered with the movements of the passenger trains, had delayed the Portland newspaper reports, had embarrassed the running of three special perishable freight extras, and had otherwise behaved in a way to make it urgent that he go somewhere else to work for some other people. That was the last time a telegraph system was ever turned into the alimentary canal of a tramp at Pocatello.

"What we started to say is that there is only one man on earth who can successfully perform the trolley feat attempted by the Twenty-eighth Street boy, and that man is believed to be in the San Francisco workhouse."

[1] I. T. U. hearings, p. 59. The testimony about the engineers is so pertinent to the present subject of corporation ill treatment of employees that it seems well to give it in condensed form. Mr. Davis said that in many cases "Railroad engineers are worked 48 hours at a time without sleep"; also that "engineers have frequently told me that they have put tobacco in their eyes to keep themselves awake," and are sometimes obliged to leave the engine in charge of the fireman to get an hour's sleep, although it is dangerous to trust the fireman because his eyes are apt to be dazzled by the fire he has been replenishing at night, so that he can not see well ahead for half an hour afterwards and sometimes for several hours afterwards.

[2] Wanamaker's argument, etc., p. 221.

[3] Blair Senate committee, vol. 1, p. 193, operator's paralysis; p. 125, consumption. "The operators are frequently carried off by consumption, generally caused by close confinement and the positions they have to take while at their work. Owing to the peculiar nature of the business, drawing the attention of the mind to the instrument, and the rapid rate at which the sounds have to be distinguished and transcribed on paper, and owing also to the position a man must assume, sitting steadily and writing all day, the ordinary and proper exercise of the respiratory organs is prevented; and as a matter of fact you will find that when a man is what we call being 'rushed' he hardly breathes at all—respiration almost ceases." (Testimony of J. S. McClelland.)

Q. What is the character of their work (operators) in respect to its exactions on the physical frame?—A. It is very exhausting work. There are very few old men in the telegraph business.

Q. Do you mean that the telegrapher dies young?—A. Yes, sir; either he dies young or he is compelled to quit the business in order to save his health. (Testimony of John Campbell, masterworkman of Brotherhood of Telegraphers. Blair, vol. 1, p. 116.)

[4] Blair, vol. 1, p. 892.

[5] Ibid, p. 230.

but instead of less work they got more, "one-third more work out of a man for a day's service," Dr. Green said.

The dangers of this cruel system, not only to the operators, but to the public, are well illustrated by the case of George Welsh, a young man of 17 years, who was telegraph operator at Plainfield, Conn,, in 1892. On the 9th of July, after he had been on duty all day from 6 a. m. till 5 p. m., he received a train order to hold a passenger train, and immediately after receiving the order he was "called up" by the chief operator at another staton, who sent him a message ordering him to report at a neighboring town as soon as he was off duty at Plainfield, remain there on duty all night, and then to report back at Plainfield in the morning and remain there all day. The result was that the boy mishandled the signals and a collision occurred which caused the death of three persons.[1]

While the Western Union is liberal in bestowing hours and burdens upon its employees, it is very illiberal in the matter of wages. A few telegraph operators are well paid, but "nine-tenths of the operators employed by the Western Union are paid from $15 to $40 a month, and many educated, intelligent men, thorough in their profession, are being paid $50 a month."[2] President Green testified that the average salary of operators was $71.56 for men and $36.75 for women, or a total average of $62 to $65.[3] But his estimates were made up from the New York offices alone (as clearly appears in the tables he gave the Bingham committee), and his figures were reduced to the absurd on cross-examination, as we have already seen.[4] The operators themselves testified that the average pay of operators even in the main office of the company was only $57;[5] that many operators employed in commercial telegraphing receive only $30, $35, $40, or $50 a month;[6] that for commercial operators, including the whole range, well-paid men and all, the average pay would not exceed $54, and for railroad operators, $39;[7] that women get 35 to 40 per cent less than men for the same work;[8] that the company pursued a systematic policy of reducing wages by filling positions vacated by death, resignation, transfer, or discharge with new men at salaries $5 or $10 below the pay of the former occupants;[9] that the reduction had amounted to 40 per cent from 1870 to 1883;[10] that it had gone so far as to reduce the salaries of first-class operators in Chicago to $50 a month;[11] and that all the while the hours of labor were increasing and the profits of the company growing larger. Senator Blair, the chairman of the Committee on Education and Labor, summed up the evidence in these words:

"The operators who came here and testified, almost universally stated that for a long series of years had been a constant reduction of salaries going on, and this while their efficiency was incresing and their hours of labor in many instances were also increasing, and more money was being made by the company.[12]

Such was the situation in 1883 when the men struck for 15 per cent increase of pay, no salary less than $50, the same pay for women as for men, and eight hours for a day's work—moderate demands, very, but the company did not accede to them. It would cost a million dollars or more, the managers said, and the company could not afford it. Poor company, only making 120 to 150 per cent on its investment; it could not afford to yield the men one-sixth of the profits the men produced. When you have read the following list of poverty-stricken individuals who constituted the board of directors of the Western Union and its chief owners, you will see why the company could not afford to pay fair wages to its men:

Jay Gould.	William W. Astor.	C. P. Huntington.
Russell Sage.	J. P. Morgan.	John T. Terry.
Fred L. Ames.	P. R. Pyne.	Cyrus W. Field.
Sidney Dillon.	Chauncey M. Depew.	John Vanhorne.
Thomas T. Eckert.	George J. Gould.	A. B. Cornell.
Dr. Norvin Green.	Edwin Gould.	Robert C. Clowry.
Samuel Sloan.	Charles Lanier.	Henry Weaver.
George B. Roberts.	Austin Corbin.	William D. Bishop.
Sidney Shepard.	John G. Moore.	James W. Clendenin.
Erastus Wiman.	Henry F. Flagler.	John Hay.

[1] Blair Senate Committee, vol. I, p. 173.
[2] Wanamaker's argument, p. 141.
[3] Bingham committee, p. 59; Blair committee, vol. 1, p. 908.
[4] Note 5 to Part II above.
[5] Testimony of John B. Taltawall, operator and editor of the Telegraphers' Advocate, Blair committee, vol. 1, p. 171.
[6] Blair committee, vol. 1, p. 103.
[7] Ibid, pp. 103, 192.
[8] Ibid, p. 116.
[9] Ibid, pp. 103, 125, 225. Many boys and girls learn telegraphy. One of the company's methods is to keep its operators instructing students. The operator is thus engaged in undermining his own position by manufacturing cheap and anxious substitutes for himself. This is one of the things most complained of by many operators (see the files of the Telegraph Advocate).
[10] Ibid, pp. 103, 171.
[11] Ibid, p. 226.
[12] Blair committee, vol. 1, p. 892.

Mr. Thurber used this list in 1890 to answer the question why the public can not have a postal telegraph, and it is an equally conclusive answer to the question why the men could not have moderate hours and reasonable wages. Every name represents some great interest—railway presidents, bankers, stockbrokers, millionaires by the ton; and you know a dollar is of much more importance to a millionaire than it is to a workingman. Gould, Sage, Astor, or any one of several others in the list could have given the men all they asked out of his own private income and never missed it if he had been of the ordinary mold of man, but being a millionaire the chances are it would have broken his heart. Some of the directors are fair-minded men perhaps, but the ruling spirits are wholly unfit to be trusted as employers with the mastery and management of human beings. More than two-thirds of them (all but the last nine) are on the Tribune's millionaire lists for the cities of New York, Boston, and Philadelphia, a number of them having fortunes of 10, 20, 30, 50, even a hundred millions, and probably there are very few if any in the entire board so poor as to have but a single million; yet these men, or the majority at least, were willing to grow richer on the labor of men and women and boys and girls receiving in many cases $8, $12, $20, $40 a month and working often 12 to 16 or even 18 hours a day. A thousand dollars, or the fair value of an average year of labor, put into Western Union stock in 1858 has brought its owner $3,000 a year ever since, or $114,000, and the investment is as good to-day as ever; but an operator who puts in a year of work on the wires gets on an average $500 for it, and that is the end of it; if he wants any more he must work some more. The contrast between the results of a year's work put into capital by the employer and a year's work done by the employee is terrific. If the board were of a generous temper toward the people who earn their income for them or even the subjects of a just and righteous conscience, the dividends of the Western Union torn from the labor of overworked and underpaid employees would have burned a hole in their pockets and dropped back among the workers.

On the profit-sharing principle of the Le Claire shops the men should have had three and one-half millions of the seven millions profit, and on the full cooperative or partnership principle the workers should have received over five of the seven millions; but the company does not know anything about the principles of partnership or profit-sharing—it knows only of profit-getting.

After the strike—and the committee had listened to months of testimony about it—Senator Blair said to President Green:

"I have the impression very strongly that you could afford to give your operators more money, and now that you have got your own way about it I wish you would just come up and give those boys more money."[1]

In 1890, however, the evidence was that the average pay of telegraph operators was $40 to $45 a month,[2] that girls were employed in some instances as low as $12 to $15 a month,[3] and quite a number were paid no more than $20 to $35,[4] while the president of the company drew a salary estimated at twenty-five to fifty thousand dollars.[5]

As a rule operators do not receive enough to enable them to marry[6] or to lay up anything for a rainy day [7]—they have little need to provide for old age if they stay in the business.

If the men apply for increase of compensation, "the testimony is that universally, without a single exception, these applications (whether made by one individual or bodies of individuals) have been ignored.[8] The only notice the Western Union takes of petitions is to 'spot' the leaders, discharge them, and blacklist them, to prevent their obtaining employment elsewhere."

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[1] Blair committee, vol. 1, p. 891.

[2] Bingham committee, p. 30, testimony of A. B. Chandler, president of the Postal Telegraph Co., and of D. H. Bates, formerly acting vice-president and assistant general manager of the Western Union, manager of the Baltimore & Ohio Telegraph Co., etc.

[3] Bingham committee, pp. 30, 85, statements of Chairman Bingham and of Mr. Beaumont citing reports of the Labor Bureau.

[4] Bingham committee, p. 30, statement of Mr. A. B. Chandler.

[5] On p. 84, Bingham rept., Mr. Beaumont spoke of "the $50,000 salary of the president of the Western Union." Mr. Crain: "Is that his salary?" Mr. Beaumont: "There are some things a man knows that he can not swear to. This is one of those cases." On p. 56 Mr. Anderson is reported as saying: "The salary of the Postmaster General is $8,000 a year, while it is generally known that the salary of the president of the Western Union is several times greater." To which President Green replied: "What matters $50,000 for executive salaries on 54,000,000 of messages? Slight matter—only a matter of justice between man and man—insignificant indeed to the Western Union.

[6] Blair committee, vol. 1, p. 144. Those who do get married generally have to get something outside the regular work in order to obtain a comfortable living for their families (pp. 150, 194).

[7] Ibid., p. 152. Not one in a hundred accumulates anything. See also p. 192, as follows:

Q. Excluding from the question men whose failure to save can be attributed to bad habits, I want to know what chance there is for a reasonably prudent and economical man to save a little money in the business of a telegraph operator?—A. Well, there might be some chance for a man to do that if he cared to work 15 hours a day—that is, for a single man, but if he was a married man, or had a father or a mother or a sister or some other person dependent on him, it would be simply impossible for him to lay up anything without working extra hours.

[8] Ibid., p. 892; the words of the chairman, Senator Blair.

"Anything in the shape of getting up petitions for increase of pay has resulted disastrously to the ringleaders. They have either been dismissed from the service or discriminated against in many ways. Their names are placed on the blacklist and managers all over the country are notified of it. When they apply for situations the managers tell them that they are on the blacklist."[1]

A company that denies the right of petition, denies, of course, with still greater emphasis, the right of organization. It has repeatedly discharged and blacklisted men for joining the Brotherhood of Telegraphers and for activity in organizing their fellow workers.[2] This is the continuous policy of the company. It acted in this way long before the great strike of 1883. Nevertheless, the men succeeded in organizing in secret, and finally sent a representative committee to confer with the officers of the company about the grievances of the men. The insulting treatment accorded this committee and the utter refusal to recognize any right of combination on the part of the men was the main immediate cause of the strike.[3] When the strike was over, the company refused to take the men back again except upon condition of signing an agreement not to belong to any organization that claimed to control their services or salaries as against the company,[4] which, of course, would uproot the brotherhood or reduce it to impotence if the men regarded their contracts, which, however, they are not in the habit of doing in such cases. They sign an agreement not to belong to a trade union, and the next day renew their allegiance to their fellow workmen. Thus does corporate oppression beget faithlessness in employees; and it is hard to blame the men for ignoring the outrageous compact to forfeit their freedom and manhood, which they are compelled by their necessities to sign. You can not make a workingman see that it is all wrong for two or more telegraph operators to combine to secure fair play and reasonable hours and yet perfectly right for two or more telegraph companies to combine to squeeze their employees and fleece the public. It takes a corporation official or a laissez-faire philosopher to see that.

The company does not hesitate to break its faith with employees if it suits its convenience, as in the case of the English operators who came to introduce the Wheatstone system on some of the Western Union lines, and were subjected to great annoyance and loss through the broken promises of Western Union officials.[5]

It is part of the policy of the company to prevent its men from securing employment in other places at better pay. Sometimes a man has traveled a long distance on the promise of $10 or $20 increase of salary, only to find at his journey's end that Western Union influence had preceded him and shattered the promise.[6]

The meanness of the company is at times astonishing even to a student of corporation history. The Stager episode is an example. During the war Gen. Stager was general superintendent of the Western Union and commander in chief of the military lines of the United States at the same time. Well, the salary of Anson Stager as colonel and assistant quartermaster and chief of the United States military telegraph corps was turned over to the Western Union, and he never got a cent of his salary as an Army officer.[7]

There is very little chance of working up to a position of moderate work and reasonable income. Length of service is not taken into account.

"I asked my manager if length of service was taken into consideration in fixing a man's pay." He said, "No; that that had no bearing on the question whatever, because there was always a new element growing up (see note 19) that could be engaged probably at less rates of pay than the old operators were getting" (Blair, vol. 1, p. 134); and again, on page 125, where a manager was asked, "What encouragement there was for a man to remain steady and reliable and faithful to his duties," the answer was, "None whatever. If you get tired of this position we can fill it with another man at lower pay."

Favoritism and greed appear to be the factors that fix wages. The manager of another company testified that he had had daily applications from first-class operators in the Western Union who were working by the side of others no better in any way and

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[1] Blair committee, vol. 1, pp. 113-115.

[2] Blair committee, vol. 1, pp. 115, 180. There is no doubt about the cause of discharge, for it was distinctly avowed by the officers of the company to be as stated in the text, and no other cause was named. That was the sole cause, and in some instances the men were informed in plain English that they would be blacklisted. In a number of instances the witnesses make their testimony specific by giving the names of men discharged and blacklisted for connection with the brotherhood.

[3] Blair committee, vol. 1, p. 122.

[4] President Green's testimony, Blair, vol. 1, pp. 896-897. After the great strike of 1870 the company took back some of the strikers on condition of their taking what was called the "iron-clad oath"—an oath to renounce their union and never again connect themselves with any similar organization. Blair committee, vol. 1, pp. 153, 199.

[5] Blair, vol. 1, pp. 157-158.

[6] Ibid., p. 227.

[7] Bingham committee, testimony of Rosewater, an intimate friend of the General's.

doing the same work and who nevertheless received $10 to $15 a month less than the last-named operators for no discoverable reason.[1]

"Favoritism seems to be one of the rules of the office. We know as a fact that sometimes the men who get the low salaries are capable of doing better work than those who get the large salaries." [2] Another witness said: "I saw that I was not receiving the wages due me in the position that I filled, and that, on account of the drunkenness and imbecility of the man who was my superior, I had his duties to perform as well as my own; and so, as there was no probability of my ever getting any more wages, I left the company on short notice. I have been able to earn a living with opposition companies, but every absorption that has been made by the Western Union Company has resulted in a decrease of wages" (Blair, 228); and again (p. 231), "In the employ of the Western Union there is no hope whatever of promotion; that is, on a man's merits."[3]

No wonder John Wanamaker found that "one-third of all the telegraph operators are continually preparing themselves for other professions, and that the other two-thirds are continually thinking of doing so."[4] No wonder, either, that thoughtful operators universally favor national ownership of the telegraph.[5] The contrast of the telegraph service with the national postal service is indeed a striking one.

TABLE VII.

	Telegraph operators.	Postal carriers.	Railway mail clerks.
Average pay per month	$40 to $50	$75	$84.
Average hours	9 to 16	8	8[6]
Promotion	For merit, rare	For merit the rule.	
Length of service	Not recognized as giving any claims to increase of pay, or continuance in employ.	Clearly recognized as giving a valid title to increase of pay, retention, and preferment.	
Tenure	Precarious, dependent on individual whim and arbitrary power of an irresponsible superior.	"Freedom from removal except for inefficiency, crime, or misconduct."[7]	
Rights of petition, organization, etc.	Denied	Accorded.	

[1] Blair, vol. 1, p. 231.

[2] Blair, vol. 1, p. 127, testimony of J. S. McClelland.

[3] Testimony of A. H. Seymour, manager of the Mutual Union, and formerly with the Western Union.

[4] Wanamaker's argument, p. 11; see also Blair, vol. 1, p. 227.

[5] Blair, vol. 2, p. 410, testimony of R. J. Hinton. "I have never found a working operator anywhere who has not been in favor (if he has thought at all of the question) of a Government service instead of a private service."

[6] The daily train run of a railway postal clerk is 4 to 6 hours. (Postmaster General's Rept., 1892, p. 523 et seq.), but the clerk is obliged to devote some further time to making reports, checking records, preparing supplies for the following trip, etc. In some cases the increase of correspondence has thrown an undue burden on some of the clerks, and then we find the Postmaster General doing all in his power to lighten their labors and increase their pay (Rept. 1892, pp. 501, 511-512, and 1894, pp. 391-392)—a line of conduct diametrically opposite to that pursued by Western Union managers. The facts as to wages of carriers and clerks are taken from the Postmaster General's Repts., 1892, p. 815, and 1894, p. 407. A carrier receives $600 the first year, $800 the second year, and $1,000 the third. Between four and five thousand of the seven thousand railway clerks receive $1,000 to $1,400 each, and fifteen hundred more receive $900 each. The contrast with the telegraph becomes still more pronounced when we remember that the bottom round for a carrier or railway clerk in regular employment is $50 a month, while the telegraph bottom is not reached till you get to $12 or lower still if anybody could be found to work for less. The post office does not seek to buy labor at auction, but aims to pay as much as it reasonably can, regardless of the price of labor at forced sale in the markets of competition. The Western Union, on the contrary, aims to pay the least possible, makes the forced sale its standard, and takes a hand itself in depressing the rate by systematic and persistent reduction.

[7] Statement of Postmaster General John Wanamaker, 1892, Rept., p. 501, not merely as the aim, but as the actual condition of the Railway Mail Service, a condition which had produced great improvement in the service. Postmaster General Bissell, 1894 Rept., p. 395, says, "The civil-service laws and regulations as applied to the Railway Mail Service accomplish all the most sanguine expected," and goes on to speak in the highest terms of the fine quality of appointments, the high efficiency, the permanence of employment, and the promotion for merit, secured under the civil-service rules.

It may be said that if the clerks in the fourth-class post offices had been chosen for comparison the contrast as to tenure, hours, wages, etc., would not have been so strong in favor of public employment. The truth is, however, that the clerks in the fourth-class post offices are not public employees. They are private employees doing public work. Uncle Sam lets out the fourth-class offices on contract and the postmasters hire their own help. The fourth-class offices are neither classified under the civil service nor nationalized. They are simply bits of private enterprise banded together to do a part of the nation's work under contract, and the clerks are no more public employees than the brakemen and conductors on the railroads that carry the mail under contract with the nation. The post office has not yet applied its own principles to the whole of its own service. But it is moving in that direction, and it is better to have good principles not fully carried out than bad principles thoroughly carried out—better to aim at heaven and take some years to get there than to aim at h—l and get there right away.

The contrast with the telegraph service abroad is scarcely less marked than the contrast with the classified postal service here. In Great Britain appointments are made throughout the postal service by competitive examination, promotion is by merit, length of service increases pay, permanence of employment is assured during good behavior and efficiency, and provision is made in case of sickness, disability, and old age.[1] After 10 years' service the employee is entitled to a pension of one-sixth of the salary and emoluments he was receiving; after 20 years the pension is one-third; after 30 years one-half; and after 40 years two-thirds of the salary.[2] The hours of labor are 8 per day and 7 per night for six days in the week, all Sunday work being counted overtime. The salary of a first-class operator is $950 a year, or about $80 a month.[3] The most significant fact of all is the contrast between the aims of the telegraph management here and in England. Here the policy is reduction of wages as the business grows, so that the proportion of income that goes to labor is continually shrinking; there the policy is to raise the wage level, so that an ever-increasing proportion of the income shall go to labor. In 1870, only 39 per cent of the telegraph revenue went to labor; in 1880, 44 per cent; in 1885, 52½ per cent; in 1890, 58½ per cent; in 1895, 72 per cent. The following table taken from Mr. Morley's returns to the House of Commons will show in greater detail the results of this admirable policy of the British postal management.[4]

Percentage of telegraph salaries to telegraph revenue:

1870	39.13
1880	44.02
1885	52.64
1890	58.47
1891	61.30
1892	64.23
1893	67.96
1894	69.96
1895	72.18

During this period the revenue has risen from four millions to thirteen millions a year, so that labor receives nearly 6 times as much as in 1870. The efficiency of employees—the amount of business per worker has of late years increased in a marked degree, and since 1885 there has been no change of tariff, so that the increased percentage of revenue going to labor means a very decided addition to individual salaries.[5]

The United States Consular Reports, volume 42, page 47, 1892, show that the English postal telegraphers receive considerably better wages than telegraphers on the English railways. Beginners receive 50 to 100 per cent more in the post-office service, and the maximum is 20 to 100 per cent higher than in the railway telegraph. For example, the Lancaster & T. Railway was paying first-class telegraphers $252 to $328 a year for 10 hours a day, while the post office paid first-class telegraphers $505 to $707 for eight hours a day. The average wage per hour was 20 to 50 per cent more in the post office than on the Great Western Railway, etc.

In France, as we have seen,[6] the average wage of telegraph employees has been for a long time above the average here even on the Western Union's own data. The French civil service is spoken of in the highest terms. It secures "perpetuity of tenure," "guarantees a constantly improving livelihood and, in case of accident, provision for

[1] Blair committee, vol. 1, p. 167. After 3 years' service an employee receives half pay during temporary sickness.

[2] Eleventh Rept. of U. S. Civil Service Commission, 1895, pp. 328–344. In Canada the pensions are larger still—one-fiftieth for each year of service instead of one-sixtieth as in England. For chief clerks the minimum salary is $1,800, which is increased annually by $50 up to $2,400. For second-class clerks the minimum is $1,100 increasing annually by $50 to $1,400, and for third-class clerks the minimum is $400, increasing annually by $50 up to $1,000. Women are employed in Canada on the same terms and conditions as men, but in England and most of the colonies their pay is slightly less, being four-fifths to two-thirds of the pay of men in the same grade of service.

[3] England's Postmaster General's Rept., 1895, pp. 7, 11. The English operators who testified before the Blair committee, said that a first-class operator received less pay in England than in America, but considering rents and prices as well as wages the English operator was better off than his American brother, financially as well as every other way (Blair, vol. 1, pp. 165–166). The salaries of operators in England have risen since the years referred to by these witnesses.

[4] I have not received a later copy of the returns to the Commons, so have only the Forty-fifth Report of the English postmaster general, which gives a different figure from the above for 1895, placing the percentage at 69.28, and puts the average for 1898 and 1899 at 67.17, a slight decline in the percentage, due not to any lowering of the wage scale, but to a large increase of business and efficiency. The average actual wage in the English post office is greater now (1899) than in former years, though the percentage of wages to total revenue is somewhat less than in some preceding years (45th Rept., Eng. P. M. G., pp. 17, 43).

[5] As a rule the salaries of telegraphers in England have been raised $150 to $200 each since 1881, and the hours have been shortened one-seventh (41st Rept. of the Eng. P. M. Gen., 1895, pp. 6, 7, 11). This is fine, but the English public service is open to criticism in respect to its failure to recognize the full equality of women, and its employment of boys from 15 to 17 years of age.

[6] Notes 5 to 8, inclusive, Part II above.

the families of employees," pensions as in England, and promotion for merit.[1] The great Republic shows the breadth and sincerity of her belief in liberty and equality by paying women in the public service the same wages as men for the same class of work.[2]

In respect to the contrast between our telegraph system and that of Germany under this head of the interests of employees, I can not do better than to quote the pregnant words of Prof. Ely, who studied the German system in its home:

"Experienced and tried men, with comparatively short hours, are employed in Germany, while in the telegraph offices of this country one finds very young lads, and they are frequently overworked. The fact that so few mature men are found among them shows that they have no secure tenure of office and no permanent employment. *One young generation of telegraph operators gives away to another.* They are employed frequently in dark, dingy, and ill-kept rooms. The contrast with the class of operators employed in a country like Germany and the neat and attractive offices found in that country is painful, and it is really a disgrace to our own country." [3]

The italics are mine. I underlined that sentence because it touches a truth of tremendous import. "One young generation of telegraph operators gives way to another." Do you know why? Do you understand the meaning of that fact? Think back over the evidence collected in this article, and you will see what it means. It means that the telegraph system in America is a great press in which the youth and energy and life of thousands of men and women are coined into gold for industrial aristocrats. It means that as each new generation comes along, the telegraph management takes as large a portion of it as may be wished, puts it into the great press, rapidly squeezes the youth and freshness and beauty out of it, the best years, too often all the years, out of it, throws it away as a cider maker rejects the juiceless pulp, and turns to replace it with new victims, rosy, plump, and hearty, from another unsuspecting generation. It means that a colossal business is conducted in the interests of a few capitalists regardless of the welfare of the multitudes who do the actual work. It means the oppression of labor, the overworking of employees, the appropriation by the master of all they produce beyond a bare subsistence—the methods that slaveholders always follow, with the added viciousness of caring nothing for the life or health of the slaves because it costs the master nothing to replace them. Such is the meaning of our telegraph system on its working side—a perennial theft of youth and years, a systematic robbery of toil—a meaning that ought to enlist every lover of manhood and justice in the cause of a national telegraph.

Chapter V.—Strikes, Poor Service, etc.

Strikes are among the serious evils of a private telegraph system. They result from the ill-treatment of employees. In the last quarter of a century there have been two tremendous telegraph strikes, extendng from ocean to ocean and causing enormous loss and inconvenience. The Western Union officially stated its own loss by the strike of 1883 as being $709,300.[4] The loss to the employees is estimated at $250,000. The public loss is difficult to estimate, but the total loss was certainly much beyond a million. The strike lasted about one month.

We never hear any such declarations of war on the part of public employees either here or abroad, for the reason that as a rule the comfort and prosperity of employees is a matter of solicitude with the management, and in those cases where, for some temporary reason, full justice is not done them, the employees affected know they possess an effective remedy of a peaceable nature, whereas the employees of a private monopoly find themselves crushed beneath the irresponsible power of a management that cares nothing for men but everything for gold—petitions disregarded and the petitioners blacklisted and discharged—no hope of any quick relief but by rebellion.[5]

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[1] Eleventh Rept. of the U. S. Civil Service Commission, pp. 354–358. Fraud or corruption of any kind is almost unknown in the public service (p. 355).

[2] Ibid., p. 358.

[3] The Arena, December, 1895, p. 51.

[4] Blair Committee, vol. 2, p. 59.

[5] There was a time when if B stole the property of D the latter had no redress but retaliation or battle. He was at perfect liberty to knock B down if he could and trample on him till he was willing to do the square thing. This was inconvenient in several ways—it disturbed the peace and harmony of society, and was not quite reliable as a means of justice even between B and D, for B might prove the stronger and squeeze the life out of D as well as absorb his property. For these reasons society ordained that individuals should not fight out their quarrels among themselves, but should take them into courts of justice, where they could be settled without a breach of the peace, and with a clearer sense of justice than either party to the squabble could be expected to possess. So much for war between man and man; but when a corporation and its employees get into trouble they are left to the primitive plan, because it disturbs society so much less, I suppose, to have a couple of battalions fighting in the streets than to have a row between D and B; or perhaps the corporation doesn't want any court interference and is able to wield a greater influence with society than the little thief B could obtain. There is no doubt that a court established to do justice between employers and employees and substitute impartial equity for the gauge of battle would accomplish much good. It could fix general principles of action, as has been done in respect to the other rela-

Apropos of the strike of 1883 the Washington Sunday Herald said:

"A country that leaves its most vital means of intercommunication, the very nerve of thought, in the grasp of a Jay Gould, deserves to have a strike every week that will paralyze correspondence, railway traffic, governmental operations (signal service, etc.), and everything else until it learns sense in the school of experience."

The following strong words are taken from Harper's Weekly:

"Such interruptions as those arising from the strike produce not only incalculable inconvenience, but loss, and it is only for the people to decide whether they shall be tolerated. They will be always possible, and imminent under the existing conditions of vast counter-organizations of labor and capital. * * * A general strike of the telegraphs and railways would in a very short time cost the Government and country very much more than the construction of a telegraph."

Poor service is another evil in large part due to abuse of the employing power. It manifests itself in slowness, inaccuracy, insufficient facilities, failure to guard the secrecy of messages, etc.

The Chicago Tribune long ago called attention to the fact that while the Western Union service between the stock exchanges was very prompt and reliable, yet "when we step outside the isothermal lines of speculation we find a sudden drop in the efficiency of the telegraph." [1] The New York Herald calls the Western Union service "poor and irregular;" the New Orleans City Item says, "the service is slow, bungling, and expensive." [2] The Manufacturer says: "The service is by no means what it ought to be. In a large percentage of dispatches errors of vexatious and hurtful character are made." [3] Poor service is one of the standing complaints of that portion of the press which dares to criticise the Western Union, and its defenders have little or nothing to say in rebuttal—only the president of the company attempts to maintain that the service is good, relying for his proof on illustrations taken from the transmission of dispatches to and from the stock exchanges or smaller gambling dens.

Prof. Ely calls the service "defective and irregular," and says that he "has sent a telegram a distance of some 400 miles and has given the telegram a start of 24 hours, then taken a train and arrived at the destination of the telegram on the same day on which the telegram was delivered. This is by no means an isolated experience." [4]

It is no uncommon thing for a person or letter to outstrip a telegram and reach the common destination ahead of it, though starting later than the electric message.

"Two years ago the 22d of February I was visiting Mr. Powderly on business. As we sat in his house at 11 oclock at night the door bell rang. When the door was opened, a reporter from the Irish World in New York walked in. After taking his seat, he inquired of Mr. Powderly if he had received his dispatch. He replied that he had not. 'Why,' said he, 'I sent you one just before getting on the train at New York, notifying you that I would be here at 11.' Just at that moment the bell rang again; when the door was opened, the Western Union messenger boy walked in, and the reporter had the pleasure of seeing Mr. Powderly receipt for the message that he had sent from New York. He had beaten his own message, by train, 15 minutes. For fear that the gentlemen present representing the Western Union may think that is so long ago that it is barred by the statute of limitation, I have here another one. This one was sent to my colleague on the committee from Florida. On the face of it, it says it was received in Washington 12.10 a. m. I saw him receipt for it at 11 a. m. It had taken them 11 hours to get it from the Western Union office to my office, five blocks away. Why, only last night I received a letter from Philadelphia by special delivery. It arrived in Washington by train at 9.25 p. m., and at 10.15 I receipted for it, only

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tions in which men stand to one another. It could, for example, affirm the principle that $50 per month should be the minimum reward for the services of man or woman in the telegraph service, and that any agreement to the contrary should be void as unconscionable and against public policy. No system of arbitration, however, whether voluntary or compulsory, could ever remove the antagonism of interest between owners on the one hand and employers and the public on the other—an antagonism which is the cause of all the evils of the telegraph system and which will cause evil in some form so long as it continues to exist. Only public ownership can remove this antagonism, wherefore public ownership is the only complete remedy for the evils of the present system. To illustrate by a concrete case: If the industrial court declared that $50 should be the minimum pay permitted by public policy (except, of course, where the service is a labor of love and friendship), the estern Union would immediately advance the price of telegraphing, and they could easily adjust their books in agreement with the Postal Telegraph Co. so as to give the appearance of necessity to any price they chose to adopt. Moreover they would arrange with employees to pay back a part of their salaries, and discharge and blacklisting would await anyone who complained. If this were met by legislation we should have another effort at evasion, and so on in endless succession, an eternal struggle to outwit and defeat the public and the employees; we have all seen it and we know only too well how largely it succeeds. Nothing but public ownership (or a marvelous conversion of the telegraph managers) can secure good wages to employees together with low rates for service and earnest efforts on the part of the management to conduct the business in the interests of the people as a whole.

[1] Issue of Nov. 23, 1883.

[2] Wanamaker, 1890, pp. 42, 204.

[3] Issue of Apr. 1, 1890 (Philadelphia).

[4] December Arena, 1895, p. 50.

40 minutes to get it through the post office and up to my office, the same distance as the Western Union." [1]

A few years ago some relatives of mine telegraphed from Atlantic City about 10 a. m. to their home in Mount Holly, 18 miles east of Philadelphia. At 3 p. m. they took train for home, which they reached that evening. Next day the telegram came announcing that they were coming. At the time of sending the message they inquired if it would go right through and were assured that it would.

There is plenty more of the same sort:

"It is within the experience of every business man that messages might sometimes have been sent by hand on one of the two-hour trains from Philadelphia to New York with a fair chance of reaching the destination as quickly as if they had been sent by wire. The service between the large cities is, however, better than that to the smaller towns. Not far from Philadelphia is a town of six or seven thousand inhabitants, having great industrial interests. It costs but little more to send a message thither from the city by rail than to use the wires, and ordinarily such a messenger can go out and return before a telegram sent in one direction will reach the person to whom it is addressed. No telegrams are delivered in the town after 8 o'clock in the evening unless it is of vital importance. The operator is the person who estimates its importance, and he rarely fails to give the benefit of the doubt to the legs of his boy. If the post office gave such inefficient service in the matter of letters it would be compelled by public opinion to improve its methods." [2]

"It is simply wonderful the delay in many of these dispatches. One of the leading and most responsible commercial traveling men of this city makes the proposition to wager any sum from $100 to $1,000 that he will file in the telegraph office in this city, any day in the year, a dispatch to ———, and after filing and paying for the dispatch, he will step across the street and hire a livery team and drive to ———, a distance of 32 miles from here, and his wager is that he will reach ——— in advance of his telegram." [3]

The company's appetite for slowness is not always content with finite delay—the message is sometimes laid away and never sent at all.[4]

The exercises are also varied by transmitting to the wrong destination, misspelling the name of the addressee so that no delivery can be made, and omitting essential words or altering the terms of the message so that misunderstandings arise, occasioning serious losses to persons innocent of all fault except that of relying on the telegraph. Hundreds of pages of legal text are required to discuss the cases in which suit has been brought against the telegraph companies for damages caused by inaccuracy of transmission, delay, or total failure to transmit,[5] and the cases in which suit is brought are but a small part of the total number in which injurious errors occur. It may be interesting to note the facts in one or two cases.

In the Landsberger case[6] a telegram to Landsberger, 28 Broad Street, New York City, was transmitted to "Lammeyer," failing thereby to reach the plaintiff. The address was inquired about over the wires, but before the error was corrected the time limited in the contract made by the sender of the telegram had elapsed and he had lost $900 by failing to fulfill a bona fide agreement for the sale of merchandise. The company was held not to be responsible because the damage was a loss of profit.

In the Lowery case a telegram to "send $500" was changed so that it read "send $5,000." The plaintiff sent $5,000 and the consignee absconded with it. Western Union not responsible.[7]

So, if the message is in cipher, the company is not responsible for errors in transmission, however careless and injurious—so it is held by the United States Supreme Court and others of high authority on the ground that as the company can not understand the message it can not contemplate any damages, which appears to me to be nonsense, but is none the less law, except in Alabama, Georgia, Florida, and Virginia.[8]

Suits have been brought in considerable numbers even by the brokers, whose work the Western Union boasts of doing so perfectly, and the general public can calculate with certainty on a large percentage of error. The following testimony of a wide-awake postmaster in the city of —— tells the universal story of Western Union service.

"Many of the actions of the Western Union Telegraph Co. in regard to business connected with the mail are inexcusable. Take, for instance, as an illustration, last

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[1] Bingham Committee, p. 86, testimony of Mr. Beaumont.
[2] The Manufacturer (Philadelphia), Apr. 1, 1890.
[3] Wanamaker, 1890, p. 139.
[4] Sprague v. Western Union (6 Daly, 200; s. c. 67 N. Y., 590); Candee v. W. U. (34 Wis., 471), etc.
[5] See Croswell's Legal Text Book on Telegraphs, etc., Little, Brown & Co., 1895.
[6] 32 Barb. (N. Y.), 530.
[7] 60 N. Y., 198.
[8] See Croswell, sec. 590 et seq. In one case the plaintiff's loss was $20,000, but the Western Union kept its millions of profit free of contribution for the wreckage caused by its employment of ill-trained, overworked operators.

Friday; I received, as postmaster here, three dispatches from commercial traveling men ordering their mail forwarded to three different points. Not merely one of these dispatches, but all three of them were transmitted wrong; that is, the initial of the name was wrong or the name spelled so badly it was absolutely impossible to decipher it. Of course there was some similarity in names or initials, so as to give me some clue as to who it was meant for, but a postmaster is not safe in guessing at these matters. I was confident they were wrong and refused them and asked the telegraph company to have a second transmission. They did so, and in each case of the second transmission the names and initials were absolutely correct; but the second transmission did not get here until the next morning, and as a consequence thereof the mail for these gentlemen was delayed in forwarding from twelve to twenty-four hours. I mention this particular date because it is fresh in my mind, but I could give you many others of like character; in fact, it is a frequent occurrence at this post office.

"Some two years ago I had a personal experience which cost me $40. I sent a telegram to the Third Assistant Postmaster General ordering 20,000 No. 5 2-cent envelopes, first quality, white. The envelopes came, but were not first quality and were not white. An investigation showed that the telegraph company in transmitting the message left the words 'first quality' and 'white' out of the message, and the order was filled exactly as the message reached the Third Assistant Postmaster General, with these words left out. The result was that I could not use the envelopes and the department simply redeemed them for their face value in postage stamps. The only thing for me to do was to grin and bear the loss. Of course, the telegraph company 'were sorry,' so they informed me."[1]

Do not imagine that the Western Union's program of bad service is completed by slowness, inaccuracy, and failure to transmit. There are other threads in the fabric of their disrepute as carriers of intelligence.

"Grave difficulties have arisen from time to time between the Government and the telegraph companies which have declined and still decline to furnish such facilities as are deemed essential to the perfect success of the signal service."[2] Hannibal Hamlin stated the insufficiency of the public service afforded by the telegraph companies as one of three emphatic reasons which impelled him to advocate a Government telegraph.[3]

The Western Union is not always satisfied with mere insufficiency of facilities for the public business. On the 4th of March, 1871, it suddenly terminated the transmission of weather reports over all its lines because of a misunderstanding as to the power of the Federal authorities over the telegraph under the law of 1866, and it was nearly four months before it could be persuaded to resume business and allow the sailors, farmers, travelers, and general public to be informed, as usual, of coming storm or sunshine, thaw or freeze.[4]

Another sort of insufficiency in our telegraph service is strongly stated by Victor Rosewater, for seven years the Western Union manager at Omaha and a high authority, as we have already had occasion to state in these papers:

"One of the most significant facts in regard to the present condition of the telegraph service in this country is that only one-fourth of the telegraph offices in this country are commercial offices and the other three-fourths are railroad offices. The telegraph companies will not maintain offices at points where the income does not cover rent and the salary of the operator. The consequence is that the people in thousands of American towns are obliged to depend upon a service where the wires are constantly busy with the transmission of railroad service messages. The railroad operators are, as a class, not competent to handle commercial business, and the dispatches transmitted through railroad offices are frequently subjected to errors and ruinous delays. Now, in Great Britain and other European countries the reverse is true. I found that there are three postal-telegraph stations to one railroad-telegraph station. In fact, the railroad wires are seldom used for commercial business. In nearly every village where there is a post office there is also a postal-telegraph office."[5]

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[1] Wanamaker, 1890, p. 139.

[2] Postmaster General Creswell, Nov. 15, 1872, p. 27.

[3] Congressional Globe, 42d Cong., 2d sess., p. 3554. The three reasons were: First, for the sake of the Signal Service, which the Western Union does not properly serve, although the Government pays it $250,000 a year; second, for the sake of the low rates, all the rest of the world enjoys, and third, for the sake of the post-office system, which may at any time be depleted by a strong telegraph in competent private hands.

[4] The Committee on Commerce, Senator Chandler, chairman, reported that "the sudden cessation of the telegraphic reports, extending in their consequences to so many interests, threaten to prove disastrous" (S. Rept. No. 223, 42d Cong., 2d sess., June 1, 1872). Other companies helped the Government out some, and finally on June 24, 1871, after a good deal of discussion, the Western Union kindly consented to permit the Postmaster General to fix the rates for Government dispatches, as is provided by the law under which the Western Union holds its right to do interstate business.

[5] The Voice, New York, Aug. 29, 1895, p. 1. For the reasons of the insufficiency of the ordinary railroad office for prompt and accurate commercial service see Bingham committee, 1890, Rosewater, p. 6.

Our telegraph service is also poor because it is not properly coordinated with the telephone service, because old methods are used instead of the newest and best, because it is marred by unjust discrimination, and because it divulges the secrets intrusted to it. The first three points will be dealt with hereafter, but a word about the last may be useful here. If you impart a secret to a doctor or a lawyer professionally, you need not fear for its safety, but if you give it to the Western Union you might almost as well tell it to the town gossip or the new reporter on a city paper whose position and wages depend on the amount of sensational matter he can collect.

Speculative operations largely depend on telegraphic reports from Liverpool and New York. On the strength of dispatches men buy wheat by the $100,000 worth. This is not commendable business, but it is none the less an outrage to take money from A for a private dispatch to himself when the information contained in it has already been peddled out to others. Yet this has been done not once merely, but many times. "An operator in Chicago claims to have paid out $400 a week for dispatches from the Old World, and the wheat markets of this; and not long since he discovered that others had been getting the benefit of these dispatches before himself, and at much less cost than he was subjected to. In an attempt to solve the mystery of these dispatches, a decoy was sent to Chicago from Milwaukee, instructions having been previously given by letter. At the Chicago office the dispatch was evidently given into other hands, for wheat advanced 3 cents a bushel at once, and the parties who secured the telegram lost $300,000 by their sharpness. A gentleman who knows whereof he speaks tells us that the contents of dispatches sent from this city by wheat men to the Northwest are frequently given to rival buyers, who operate upon them."[1]

Loud complaints have been made about the disclosure of political messages and Government business, even military dispatches in time of war. In 1894 Mr. Wilson said: "Suppose I transmit a confidential telegram relative to political matters of importance to myself. In the general judgment of the people of the West such news as that now leaks like a sieve."[2] At the time of the Hayes canvass the governor of Florida complained that messages were exposed at Tallahassee to a leading Democratic politician.[3] In 1889 the Western Union received $88,000 for selling election news to pool rooms, theaters, etc.,[4] the news being abstracted from messages sent over its wires by third parties, just as if the post office should select information of special interest from the letters that pass through its hands and sell it to pool rooms, theaters, etc. Of the insecurity even of orders sent to the troops in time of war a flagrant instance was referred to by Mr. Albright in the second session of the Forty-third Congress. Important Government dispatches ordering certain movements of Union troops were sent by Maj. Gen. McDowell to Capt. Mills and other officers. Twenty-four hours before the dispatches were delivered to the addresses the contents of the messages had been given to the public in a garbled form for the sake of political effect, and the contemplated movements of the troops had to be countermanded.[5]

The contrast between our telegraphic service and that of Europe is not at all pleasing to American pride. President Francis Walker, of the Massachusetts Institute of Technology, told the writer that he found the service in England and Germany much better than in the United States. Prof. Simon Newcomb says that the telegraph service in the United States is the poorest in the world among enlightened nations.[6] And Prof. R. T. Ely says that "the contrast between the service in this country and the service in Germany is most painful to one who has lived in both countries,"[7] and he specifies the facts that the offices are so frequently closed, that none exist in rural districts, that transmission is irregular and unreliable, and that inaccuracy in greater or less degree is the rule rather than the exception, all of which is the exact contrary of his experience with the German telegraph. Other evidence of the superior efficiency of the public telegraphs across the sea will be adduced when we come to speak specifically of the foreign telegraph.

Now and then an individual worker will make a mistake or commit a wrong, even when all the employees are chosen with care, well trained, well paid, and well treated, but the multiplicity of errors, discriminations, delays, etc., that characterizes our telegraph service and distinguishes it in so marked a manner from the public service abroad is due to the very nature of a selfish private monopoly.

A private telegraph does not aim at service. It wants cheap labor, and that means inefficient labor. It abuses its employees, and they are consequently out of sympathy

[1] H. Rept. No. 114, pp. 11, 12.
[2] Henderson committee, I. T. U. hearings, p. 41.
[3] Blair committee, vol. 1, p. 901.
[4] Bingham committee, Rosewater, p. 3.
[5] Cong. Rec, 43-2, p. 1422.
[6] Quarterly Jour. of Economics (Harvard University), July, 1893, vol. 7, p. 391.
[7] Arena, Dec., 1895, p. 50.

with their work, do not put their hearts into it nor give as good service even as they know how to give. The long list of imperfections in Western Union service results from the ill-treatment of employees, the lack of proper care in the use of the employing power, the policy of suppressing inventions, the absence of needful facilities, the false distribution of those that exist, and the ruling thirst for gain regardless of the public good. For every count in the indictment the management of the company is responsible.

CHAPTER VI.—DISCRIMINATION.

DISCRIMINATION AGAINST INDIVIDUALS, PLACES, THE GOVERNMENT, AND NEWSPAPERS—ALLIANCE WITH PRESS MONOPOLY—INFRINGEMENT OF LIBERTY OF THE PRESS—AN IDEAL NEWS SERVICE.

The ninth evil of our telegraphic system is discrimination. We have already spoken of the Western Union's unjust distinctions as to wages in the cases of men doing the same work, and of its absurd discrimination against women en masse.[1] We have now to discuss its injurious discriminations against certain persons and localities and in favor of others in respect to rates and service.

Sometimes the discrimination takes the form of refusing to render certain services to certain persons. For example, a merchant who is a member of the exchange can send a message four or five hundred miles from New York to Bradford in the oil region for 10 cents and get an immediate reply, but a merchant who is not a member of the exchange can not obtain any such service; he must go to another office and pay 25 cents and wait an hour or two for his answer.[2] Sometimes the company refuses to receive any messages at all from certain persons or for certain persons,[3] or declines to allow certain messages to go over its wires.[4] At other times the discrimination consists in delay,[5] confinement of market reports or other news to a few favored individuals for an hour or two, transmission by devious routes, violations of the due order of transmission, unjust distinctions as to rates, giving rebates to favored individuals,[6] persecuting others to compel their submission to the telegraph managers or punish them for a personal difference, etc.

Mr. D. H. Craig tells of a case in which the telegraph managers took up a personal quarrel and gave orders not to send C's messages until some time after rival reports had been forwarded. And C had to establish a horse express to carry his messages, with a loss of five hours' time and serious expense. The news came regularly from abroad, and as soon as the steamer was signaled at Halifax "one of the telegraph lines was conveniently out of order, and the operator on the other was ordered to send me the Bible and continue till the arrival of my horse express" (five hours).[7]

The Washburn committee reported that "rules of precedence in the transmission of messages are systematically disregarded by the leading American company."[8]

"Stock exchange business has the right of way over the wires in preference to any communication of a personal or social nature."[9]

The directors and managers of the Western Union are stock speculators, and they favor their own class.

"The laws of the United States require the telegraph companies to transmit Government business ahead of every other business, but they never have done it. They did not do it on the Pacific line, and they have not done it on any other telegraph line. A

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[1] The managers say that a man is paid more than a woman for the same work because a man needs more. He may get married and have a family to support. As a matter of fact, however, such considerations have nothing to do with Western Union policy. No difference is made between the salaries of married and unmarried men. Under present conditions a worker should not be paid less than the worth of her work simply because her need may be less. If the burdens of the worker were the guide, many an unmarried man and woman and many a married woman has quite as much need of good pay to support those dependent upon him or her as could ever occur in the case of a married man. If the Western Union really pay with a view to the requirements of married life, why is it that they pay so little that even their male operators can not, as a rule, afford to marry, as we have seen is the case. The fact is that Western Union wages are simply auction prices for labor depressed as much as the buyer is able, and women, having home support of some degree in a greater number of cases than men, are able to sell their time for less than the average for men.

[2] Sen. Rept. 577, Pt. II, pp. 59, 63.

[3] H. Rept. 125, 43-2, p. 11.

[4] Congressional Record, 1875, vol. iii, p. 1422, where Mr. Albright tells how a committee (of which he was a member) sent to gather testimony at the South found it impossible to telegraph the facts to the North.

[5] "To delay a telegram which, in the words of the Western Union Co. itself, 'from its very nature requires instant transmission and delivery,' is no less a crime than to rob or delay the mail, and yet it is the constant and daily practice of the company aforesaid." H. Rept. 114, p. 11.

[6] Rebates amounting to 20, 25, and even 50 per cent have been given by the telegraph companies to influential business men in times of competition. Bingham Com., p. 25, testimony of A. B. Chandler, president of the Postal Telegraph Co.

[7] Blair Com., vol. ii, p. 1279.

[8] H. Rept. 114, p. 10.

[9] Wanamaker, 1890, p. 223.

message known as C. N. D. (the commercial news department) has precedence over everything else." [1]

An operator's testimony given to the Henderson committee informs us that "the Western Union favors one class of business and wilfully neglects to do justice to another. Certain business, mostly brokers' messages, has special rights over everything else. The operator who is sending death messages, messages that summon children to the bedside of dying parents or transact legitimate business of merchants and manufacturers, is often obliged to lay them aside in order that the wires may be used for the business of a trust, a monopoly, or a ring of speculators." [2] "The discrimination between the messages of different customers both as to rates and order of transmission" was classed by Postmaster Gen. Creswell among the four great and growing evils of the private telegraph. He prepared tables of existing telegraph charges, and declared that "the tables show most clearly the inequality and discriminating character of the American tariffs as opposed to the generally uniform rates of Europe." [3] The Ramsey committee also tabulated Western Union rates, and showed that very unequal charges were made for equal distances, and subject to very similar conditions except in respect to competition.[4] Similar inequalities exist to-day, though less in degree on the whole than formerly. A 10-cent rate is allowed in some cases for a service that costs 25 and 50 cents or more in other cases. A telegraph company, like a railway, can, by arranging its tariff, do much to send business to a town or city and aid its growth, or to keep trade away and hinder its development, as may happen to suit the interest or caprice of the managers.

Victor Rosewater, testifying before the Bingham committee in 1890 about the rates when he was manager of the Western Union at Omaha, spoke as follows: "While our rates from Omaha to San Francisco were never higher than $3 for a 10-word message, our rates to Denver were $4.50. Omaha to San Francisco, 1,700 miles, rate, $3; Omaha to New York, 1,400 miles, rate, $5.65; from Omaha to Chicago, 500 miles, we charged $3.55; from Council Bluffs to Chicago, a distance only 5 miles less than from Omaha to Chicago, we charged $1.55, a difference of $2 on every 10-word message in favor of Council Bluffs. I have known people to get on the stage coach, pay 75 cents fare from Omaha across the river to Council Bluffs, and 75 cents back, making $1.50, and still save 50 cents on a 10-word message to Chicago." [5]

In his letter favoring public ownership of the telegraph, Cyrus W. Field lays much stress upon the fact that "a Government system would prevent unjust discriminations." [6] Mr. Field is the only one of the Western Union directors, so far as I know, who has raised his voice against the company's policy of arbitrarily favoring certain persons and localities at the expense of others. After detailing a flagrant case, he

[1] Bingham Com., testimony of Victor Rosewater, a former Western Union manager, p. 5.
[2] I. T. U. hearings, p. 5.
[3] Creswell's Rept., Nov. 15, 1872. Wan., 1890, pp. 155, 156.
[4] Sen. Rept. 18 and Sen. Rept. 242, 42-3, p. 9.
The first states that the rate from Washington to Boston was $0.55; rate from Washington to Waltham, 10 miles out of Boston, $1.75; rate from Washington to Chicago, $1.75; rate from Washington to Geneva, 40 miles from Chicago, $3.
The second report shows very uneven charges for nearly equal distances: Washington to New York and Williamsport, 40 cents and 75 cents; Washington to Wheeling, Albany, and Parkersburg, 30 cents, 80 cents, and $1; Washington to Indianapolis, Bangor, and Grand Haven, 50 cents, 90 cents, and $1.70; Washington to Memphis, Mobile, and St. Augustine, $1.25, $2.50, and $3.50.
The said second report (242) then proceeds to illustrate the arbitrary character of the whole tariff as follows:

TABLE VIII.

	Miles.	Rate.		Miles.	Rate.
Washington to—			Washington to—Continued.		
Harrisburg	125	$0.40	Des Moines	1,100	$2.30
Philadelphia	140	.35	St. Augustine	1,000	3.25
Cumberland	180	.40	New York to—		
Williamsport	220	.75	Morristown	30	.35
New York	230	.40	Albany	150	.30
Wheeling	380	.30	Boston	230	.30
Wilmington, N. C	380	1.20	Pittsburgh	430	.25
Pittsburgh	330	.25	Norwich	120	.50
Boston	460	.55	Easton	75	.50
Cincinnati	600	.50	New Haven	70	.25
Chicago	800	1.00	New Brunswick	32	.25
Indianapolis	700	.50	Concord	300	.50
St. Louis	940	1.75	Rochester	385	.50
Memphis	1,050	1.25			

[5] Bingham committee, Rosewater, p. 5.
[6] H. Rept. 114, p. 70.

says, "Such an unjust discrimination as this would not be allowed by the Government for a day." [1]

By means of discrimination in rates or service or both the telegraph company can turn the tide of business and prosperity toward a locality or an individual, or it can hinder the growth of a city and ruin a tradesman or a newspaper by excessive rates or delaying messages, governing persons and places somewhat as a railway does by means of freight and passenger rates, the supply or nonsupply of cars, and the quickness or delay of transportation.

In Cincinnati some years ago a Mr. Davis started a bureau of information to keep the merchants posted on the state of the New York markets. He secured many subscribers and worked up a flourishing business. The Western Union saw the value of the enterprise and established a "Commercial News Bureau" of their own for the purpose of furnishing these same market reports to the various cities throughout the country. They appointed an agent in Cincinnati, offering to take Davis's subscribers off his hands and pay him a small part of what he was making out of his business. Davis refused, whereupon the Western Union told him they would break up his trade. They did, and Davis sued and got judgment for $3,000 damages. The evidence was conclusive that the Western Union, while receiving pay regularly from Davis for his dispatches, purposely delayed them and sent them by circuitous routes; whereas their own dispatches of a similar nature were sent through in advance of all others.[2]

A few years ago two papers in San Francisco favored a postal telegraph a little too briskly. Their telegraph rates were raised. One of them died in consequence; the other ceased to publish attacks on the Western Union, and was restored to good fellowship.[3] While Mr. Orton was president of the Western Union, a certain paper criticized some act of his, and the next day, or the next but one, the rates of that paper were doubled. It ceased to receive any telegraphic dispatches because it could not pay for them.[4]

Mr. A. P. Swineherd, editor of the Mining Journal, Marquette, Mich., wanted to start a daily—a population of 150,000 people desired a daily and he wished to supply the need. A daily can not live without the telegraphic news. Fully aware of this, Mr. Swineherd made an agreement with the Western Union before moving further into his plan. He contracted for 3,500 words each week at $30 a week, and a half a cent a word extra. On the strength of this he spent $5,000 for materials and improvements in preparation for the daily. Then the Western Union refused to fulfill its agreement, telling Mr. Swineherd that he must get his news from the Associated Press. If he got it from the United Press, the telegraph rate would be $105 a week for 3,500 words. The Associated Press when applied to refused to give the service necessary for the paper and demanded $1,000 bonus at the start for the service it would give. Mr. Swineherd would gladly have paid this exaction, but the service offered was entirely unavailable, so that his plan had to be abandoned at great loss.[5]

Lloyd Breeze, the editor of the Detroit Evening Journal, testified that he had found it impossible to get into the Associated Press or to obtain the market reports. The best he could get was a contract for special telegraphic news at one-half the commercial rate. The result was that he had to pay from six to fifteen times as much for news as other papers did and employ special correspondents besides. He added that the Western Union could abrogate the contract at any time, thereby compelling him to pay more than double the burdensome telegraph taxes then resting upon him.[6]

This complaint that newspapers are barred out of the Associated Press, and so denied the benefit of low rates for telegraphic news, is of frequent occurrence in the

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[1] H. Rept. 114, p. 70.

[2] H. Rept. 114, p. 63. Contrary to their usual self-complacency under all circumstances, the Western Union officers do not seem to enjoy discussing this Davis case, but when it has appeared necessary to do so they have followed their usual custom of varying the facts and contradicting even their own sworn testimony previously given. See H. Rept. 114, p. 100. This News Bureau case is referred to by Mr. Hubbard in S. Rept. 577. In the course of his remarks he said: "The Western Union stopped sending his (Davis's) messages on the through line, and transmitted them on a way line. There was no priority for their messages. Oh, no! They only sent them on the through line, while the others went on the way line. Those that went by the way line were longer in getting through, and when received the customers of the Western Union had already received the prices and acted upon them. No priority—only the man was ruined."

[3] S. Rept. 577, Pt. II, p. 65. In the case of the Herald, owned by John Nugent, the rates were raised 122 per cent, or from 6.92 cents per word to 15.38 cents a word, while at the same time the rates to other papers were reduced from 2.4 to 1.2 cents a word. Being discriminated against and entirely excluded from the Press Association, he tried to establish news agencies of his own, but the news cost him 20 times as much as it did the Call or the Bulletin, or the other papers in San Francisco, equal dispatches costing him 10 to 15 times as much as was paid by the combined papers in the Associated Press of San Francisco. After losing in this way about $200,000 in eight months, he failed. S. Rept. 242, 42-43, p. 4; H. Rept. 125, 43-2, pp. 9, 11; I. T. U. Hearings, 1894, pp. 30, 50, 51.

[4] S. Rept. 577, Pt. II, p. 65.

[5] S. Rept. 577, Pt. II, p. 279.

[6] S. Rept. 577, Pt. II, p. 283.

congressional investigations. Such news being necessary to a large daily, it follows that the allied monopolies—the Western Union and the Associated Press—are able to dictate terms to anyone proposing to start a new paper and can checkmate his enterprise altogether if they wish to do so. They also have the power to destroy almost any existing daily, except the few that are wealthy enough to stand the drain of discriminating telegraph rates. The said monopolies have not been slow in recognizing their power nor at all abstemious in its exercise.

The International Typographical Union complained at the hearings in 1894 that there was "a tremendous bar in the way of starting newspapers," it being practically impossible to start a daily without the consent of the Western Union and the Press Association, and that the chances were that "any paper attempting to assert its own individual opinion as against the Western Union would suffer for it."[1] The Hon. Marion Butler spoke of cases where one paper in a town enjoys a telegraph franchise and the other papers can not get it. Mr. Quigg, of the committee, said:

"No doubt about that. To my mind that is one of the greatest evils we have to contend with, the fact that newspapers combine to create press associations, and thereby shut out other newspapers."[2]

If one is responsible for a wrong he might easily and lawfully prevent, the Western Union is responsible for the news monopoly. Yet the Western Union not only does not exert its power in favor of fair play and equal rights, but discriminates against the outside papers. And taking the cost of transmission and collection together the distinction is overwhelming. A paper in the association can obtain news for a fraction of the price that must be paid for similar service by a paper not in the association—it is this fact that enables the press association to control the newspaper field.[3] If the Western Union would stand for fair play and equal rates to all and make it a part of the press agreement that all papers should receive the news at fair rates without discrimination, the Associated Press would lose its tyrannical power of exclusion.[4] But the Western Union prefers to be a coconspirator in the building a press monopoly, because in return for its aid it gains a mighty hold upon the press.

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[1] I. T. U. hearings, pp. 30-32, 50, et seq.

[2] I. T. U., p. 45.

[3] "The Western Union discriminates against papers not belonging to the association—the price for the same dispatch is at least double if the paper does not belong to the association." (S. Rept. 624, 43-2, p. 2.) The Western Union, if it chose, could secure the equalization of all advantages in respect to the daily news, as stated in the text.

[4] Since the text was written the Supreme Court of Illinois has rendered a decision (56 N. E. Rep., 822) which breaks in upon the news monopoly in vigorous fashion. The Chicago Inter-Ocean was a member of the Associated Press. It was provided in the by-laws of the association and in the contract with the Inter-Ocean that one receiving news from the association shall not receive news from any person, firm, or company which shall have been declared by the directors or stockholders to be antagonistic to the association. The Inter-Ocean, contrary to these provisions, bought news of the Sun Printing Co., of New York, which had been declared hostile by the directors of the Associated Press. Complaint was made and the Associated Press sent notice to the Inter-Ocean that the directors would meet at a time and place named to consider the matter. Heavy fine, or suspension, or expulsion—probably the latter—was the natural outcome. But the Inter-Ocean brought a bill asking for an injunction against such action by the Associated Press or any refusal to furnish news under its contract (securing the night news report for a term of 92 years at $102 per week, subject to 50 per cent increase). The bill claimed that the above-mentioned provisions in the contract and by-laws were void, as tending to create a monopoly. At the first hearing in the lower court the bill was dismissed for want of equity, and this decree was affirmed in the appellate court for the first district, but on appeal to the supreme court the judgment of the appellate court and the decree of the Circuit Court of Cook County were reversed and the injunction was ordered as prayed for.

The supreme court held the said provisions of contract and by-laws to be void as tending to monopoly, and based its decision in favor of the Inter-Ocean upon principles which, if fully carried out, will destroy the monopoly of news. The court said:

"Scarcely any newspaper could organize and conduct the means of gathering the information that is centered in an association of the character of the appellee because of the enormous expense, and no newspaper could be regarded as a newspaper of the day unless it had access to and published the reports from such an association as appellee.

"For news gathered from all parts of the country the various newspapers are almost solely dependent on such association, and if they are prohibited from publishing it or its use is refused to them their character as newspapers is destroyed and they would soon become worthless publications. * * * The sole purpose for which news was gathered was that the same should be sold, and all newspaper publishers desiring to purchase such news for publication are entitled to purchase the same without discrimination against them. * * *

"The publication of that news became of vast importance to the public, so that public interest is attached to the dissemination of that news. * * * It (the Associated Press) has devoted its property to a public use, and has, in effect, granted to the public such an interest in its use that it must submit to be controlled by the public for the common good to the extent of the interest. * * * The appellee (Associated Press) being engaged in a business upon which a public interest is engrafted, upon principles of justice, it can make no distinction with respect to persons who wish to purchase information and news, for purposes of publication, which it was created to furnish."

These statements are based on broad principles, well established by the cases cited in the decision but not heretofore applied to the business of supplying news. Their application here is one more illustration of the intense antipathy of the law to anything like a monopoly by private agreement (a monopolistic franchise grant by the legislature is sustained by the same courts that declare monopoly by combination null and void, as against justice and public policy).

This brings us to the tenth evil of our present system of distributing intelligence, viz, the infringement of the liberty of the press. The Western Union and a number of leading newspapers have formed a sort of double-star monopoly for mutual advantage and protection against competition. The understanding between the telegraph company and the press associations secures to the latter low rates and the power of excluding new papers from the field, and to the former a strong influence upon press dispatches, the support of the papers in such associations, and the exclusive right to transmit and sell market quotations. Besides the force of direct agreement and the powerful motives of mutual support that naturally develop between two individuals or corporations working together year after year with an ever-present consciousness in each of the vital relation to its prosperity that is sustained by the other—besides all this, the men who run the Western Union control a number of papers directly, and can control others whenever it may be thought best. The Western Union not only has the power of causing serious loss to newspapers that oppose it—it has millions with which to buy the stock of an obnoxious paper, so capturing the fortress entire and spiking the guns or turning them against its enemies.

In one of the Ramsey reports we read that "The president of the Western Union is a trustee of the New York Tribune, which is one of the Associated Press. The publisher and one of the proprietors of the New York Times is a director in the Western Union Co."[1] Turn back to Chapter IV and run over the names of the Western Union directors, and you will begin to realize the tremendous influence over the press that results to the Western Union simply from the summation of the individual influences of its directors. And the board of directors is only the headlight, the smokestack, and the engineer—the big locomotive is made up of all the power of the whole body of Western Union stockholders, and its pull is tremendous. When we add to this the power of the company through its control of rates and its alliance with the Associated Press, it becomes a matter of grateful surprise that so many papers have shown an independent spirit in discussing the telegraph question.

The Washburn committee reported that "the associations themselves, and consequently the newspapers, are completely in the power of the telegraph companies, which can at any moment raise the rates for news telegrams to a par with those charged for private messages, and thus prevent their transmission almost altogether."[2]

President Orton testified that the company had a compact with the Associated Press, by which the latter agreed to stand by the Western Union.

Here is a copy of the agreement:[3]

[Extract.]

CONTRACT OF TELEGRAPH CO. WITH THE PRESS.

"And said Associated Press agrees, that during the continuance of this agreement they and their agents, and all parties furnished by them with news for publication, and the agents of such parties, shall employ the said telegraph company, exclusively, to transmit to and from all places reached by its lines, all telegraphic messages relating to the news or newspaper business, and that they will not in any way encourage or support any opposition or competing telegraph company."

The courts have all along been emphatic in their decisions against the trusts, but the trusts still flourish, and it remains to be seen (1) whether the courts will actually order the Associated Press to furnish news to a paper that never was admitted to membership, and (2) whether, if they do so order, the Associated Press will find a way to evade and nullify the law, controlling the field through heavy charges to members not stockholders or by some other trick the courts can not get at.

In respect to the by-laws and contract the supreme court said: "To enforce the provisions of the contract and this by-law would enable the appellee to designate the character of the news that should be published, and, whether true or false, there could be no check on it by publishing news from other sources.

"Appellee would be powerful in the creation of a monopoly in its favor, and could dictate the character of news it would furnish and could prejudice the interests of the public. * * * Its tendency, therefore, is to create a monopoly in its own favor and to prevent its members from procuring news from others engaged in the same character of work, and such provision is illegal and void."

[1] S. Rept. 242, 43-1, p. 5.

[2] H. Rept. 114, pp. 46, 47.

[3] From H. Rept. 114, p. 104; H. Rept. 125, p. 10; I. T. U. hearings, p. 34; and S. Rept. 242, 43-1, p. 3.

[Extract.]

PRIVATE CIRCULAR.

(Not for Publication.)

CINCINNATI COMMERCIAL OFFICE, *April 15, 1867.*

To the Members of the Western Associated Press:

Your attention is invited to the clause in our contract with the telegraph company, which forbids us to encourage or support any opposition or competing telegraph company. That clause was to the telegraph company a valuable consideration for the favorable terms upon which they contracted with us.

M. HALSTEAD,
Ex-Com. W. A. Press.

The press of Great Britain appears to have been nearly unanimous in its demand that the Government should take control of the telegraph in that country, and have displayed an independence which might be imitated advantageously by some of our leading presses. Though the leading telegraph companies of England threatened the press that their dispatches would be stopped in case they did not cease their advocacy of the telegraph bill, they did not cease, but talked stronger and plainer than before. As a specimen of the attempted interference with the freedom of the press, we quote the following from a letter addressed by the superintendent of the telegraph to the proprietor of the Belfast Whig, who had advocated the postal bill:[1]

"The time appears to have arrived when the directors should seriously consider whether the contract with your journal should be continued, and I have no doubt they will come to a decision which may afford you an opportunity of making your own news arrangements on less exhorbitant terms."

The English committee, in examining the proprietor, said:[1]

"Question. So the company had the power, if they wished it, of saying that you should not receive telegraphic news unless you took a particular line in your paper on particular questions?

"Answer. Yes.

"Question. Is that a condition of things which could be tolerated by the editor of a newspaper?

"Answer. It is a condition of things that I should not tolerate at any rate, and I should think it would be intolerable to any man of independence."

In the second Ramsey report it is stated that the "papers favoring the postal telegraph have subsequently either lost their telegraphic news or been provided with it at a price so high that they could not afford to pay for it."[2] We have seen that death has sometimes resulted from this bleeding and blistering process prescribed by the Western Union doctors for removing dangerous symptoms of public spirit. Speaking of the feelings of editors who find themselves compelled to silence, complete or partial, the report says:

"These gentlemen have regretted that they were thus controlled by the telegraph company, and that under its constant pressure they could not speak freely."[3]

Another passage from the same report is too important to omit:

"The operation of a postal telegraph system would result in the speedy termination of this alliance (between the press and the telegraph), and will be a very important step toward the freedom of the press."[4]

D. H. Craig told the Blair committee that "The Western Union and the Press Association work together to ruin a paper that buys news from any competing telegraph line. The editor of the only morning journal in one of the largest interior cities in New York State began to take news from a rival company, and refused to discontinue. The Western Union complained to the Associated Press, and its manager negotiated with the publisher of an evening paper to run a morning edition, pledging him free and exclusive telegraphic press reports for a year. The rebellious editor quickly yielded."[5]

The censorship of news established by the Associated Press is clearly contrary to the public good. All eastern news goes to the agent of the Associated Press in New York, and is "edited" by him to the newspapers of the nation. "This editing consists in selecting such parts as the central officer thinks proper to send out, and in modifying the language, etc.,"[6] to adapt the matter to the use of the press.

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[1] H. Rept. 114, p. 104.
[2] S. Rept. 242, 43-1, p. 22.
[3] Ibid., p. 23.
[4] Ibid., p. 5.
[5] Blair Com., vol. ii, pp. 1279, 1280.
[6] S. Rept. 577, p. 18, testimony of William Henry Smith, manager Associated Press.

Senate Report 624, 1875, contains these significant words:

"The news furnished to very leading and almost every other daily paper comes from one source, and its preparation, wherever it is collected, is under the direct supervision of the agent of the seven associated papers in New York. It is inevitable that the views, opinions, and interests of those seven papers should be expressed through this channel, especially by the full or short reports upon topics they favor or oppose and by the bias of the writer's mind." [1]

Gardiner G. Hubbard said to the Hill committee:

"The man who rules the Associated Press has an instrument for shaping the opinions of the millions which, by the constancy, universality, and rapidity of its action, defies competition. The events which take place in all business, political, and religious centers, together with the actions of public men and their imputed motives, are all presented simultaneously to the public, from ocean to ocean, through this instrumentality. The agents who collect the news respond to the central authority at New York, and are subject to removal at its pleasure. Here is a power greater than any ever wielded by the French Directory, because in an era when public opinion is omnipotent, it can give, withhold, or color the information which shapes that opinion. It may impart an irresistible power to the caprice of an individual, and the reputation of the ablest and purest public man may be fatally tainted in every town and village of the continent by a midnight dispatch. It is incompatible with public safety that such an exclusive power to speak to the whole public in the same moment, upon every subject, and thus to create public opinion, should be under the absolute control of a corporation." [2]

It is not much trouble for the Western Union to control the engine that carries opinions to millions of men. If it does not hold the lever in its own hand, it is in partnership with the engineer, who is under heavy obligations to it and might be subjected to enormous losses by its displeasure.

Mr. Thurber, representing the National Board of Trade, said to the Bingham committee during a description of a previous discussion of the telegraph question:

"One reason why, perhaps, we have not had a postal telegraph long ago has been the fact of the close relations existing between the Western Union Telegraph Co. and the Associated Press, which latter corporation has daily educated public opinion in the opposite direction. Mr. Wiman (a Western Union director, who had just spoken) is evidently a fair man. But unless Mr. Wiman sees to it that both sides of this question, as presented here to-day, are sent out with equal fairness over the wires, you may be sure that all the points he had made will go flashing out to all parts of this country, and that all those that have been made against him will find their resting place only in the published proceedings of the National Board of Trade. [Laughter and applause.]" [3]

It was well known that Dr. Green's testimony in behalf of the Western Union had been sent in full to leading papers all over the country free of charge, while it was impossible to get anything but very meager and unsatisfactory reports of the opposing testimony, even on payment of the ordinary press rates. The only way to get such information was to employ a special correspondent and pay special telegraph rates.

When England bought the telegraph a strong effort was made to counteract the effect of the move upon public action in this country. The British post office assumed control February 1, 1870.

"Immediately thereafter efforts were made to discredit the British system in this country, and many were the ocean cable dispatches received by the Associated Press and sent to the country by the Western Union Telegraph Co. calculated to give an entirely false impression to the public." [4]

One of these dispatches was sent to the secretary of the British post office, and he said: "The cable dispatch which you inclosed in your letter is nothing else than a series of malicious exaggerations, with the very slightest groundwork of truth in them, strung together for the purpose of damaging your plan" of establishing a postal telegraph in America.

Not only does the press monopoly select and color the news, it has even forbidden the papers receiving such news to criticise it.[5]

"The Associated Press has notified newspapers that they would withhold the news from all papers that criticized such dispatches. This power was exercised in the case of the Petersburg Index." [6]

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[1] S. Rept. 624, 43-2, p. 3.
[2] S. Rept. 577, 48-1, testimony, p. 19.
[3] Bingham Committee, Thurber, p. 24.
[4] H. Rept. 114, p. 8.
[5] "The press reports, by the rule of the New York Associated Press, can not be criticised by any paper receiving them." S. Rept. 624, 43-2, p. 3.
[6] S. Rept. 242, 43-1 p. 3; S. Rept. 624, 43-2, p. 2; and S. Rept. 577, pt. 2, p. 65.

Such an order we might expect from the Czar of Russia, but in America it is astounding, until we remember that a great industrial monopoly and a czar are next of kin and very like in disposition and methods of action.

Freedom in temperate criticism and the sober expression of honest thought is one of the fundamental and all-important rights of man. No person or corporation should have the power to suppress criticism upon its own conduct or upon any other subject whatever.

No person or corporation should have the power to mold the daily news, or exclude any paper from printing it on equal terms with its rivals. It is doubtless true that there are too many newspapers already,[1] but the Western Union and the Associated Press are not the proper ones to decide whether or not a new paper shall be started or an old one depart this life. The success of a paper should depend upon its merit, not upon the favor of the Western Union or the assent of other papers.

It is a good thing to gather the news to a central point and edit it to the country. An enormous amount of useless repetition is thereby avoided, and a better distribution of news secured. But very careful provision should be made to insure the impartiality of such editing and distributing. If the association were open to all newspapers on equal terms, and the editor in chief were elected by all the newspapers, each casting one vote, and were sworn to impartial service, subject to removal by a vote of dissatisfaction on the part of 15 or 20 per cent of the constituent papers—if any paper or papers choosing to pay extra for special representative could have one entitled to a seat in the editing chamber with full access to all materials received and authority to add a supplement to the chief's report, to cover important matters omitted or misstated by the chief—if the report and supplements in full were sent to central points in various parts of the country, set up and sold as plate matter, at uniform rates, to all subscribing papers—if each and every paper were free to criticize the dispatches—then we should have laid the foundation for a free and impartial press. The very presence of the supplemental editors would probably, as a rule, prevent the necessity of supplemental reports by their potential effect upon the chief's reports.

The first step toward the establishment of an unfettered press is a national telegraph system carrying the news or renting wires at very low rates on condition of impartial editing and distribution of dispatches on some such plan as that outlined above, or a better one. The chains of the allied monopolies will thus be broken, and the coordinate growth of intelligence and cooperation will gradually free the press in larger and larger degree from the limitations placed upon it by ignorance, prejudice, and the strife of competitive business and politics.

I hope the time will come when the news reports in chief and supplemental will be published each day at central points on sheets of uniform size, devoted exclusively to condensed and classified statements, carefully indexed and divided into sections, with black-faced headings. A file of such sheets would constitute a daybook of the world's history free of all extraneous matter. A man could buy the news without purchasing several rods of advertisements, and the cost would probably not exceed 25 cents a year to each subscriber. For the local news of towns, bulletin sheets or, in many cases, bulletin boards, would be amply sufficient. Some such organization of the business of distributing news is sure to come because of its inherent economy and its manifest advantages over the infinite confusions, entanglements, and duplications of the present system.

With the growth of cooperation advertising will no longer be a battle of rival wares, each seeking to force itself upon the public by the size and multitude of its appeals, but will shrink to the moderate bulk required by its true function of affording information to those upon a quest. The mass of this service will also probably differentiate into a series of bulletins devoted exclusively to advertising, which will be carefully classified, so that one may ascertain at a glance the resources of the market in respect to any commodity or service.

Freed from the burdens of obtaining, arranging, and printing vast duplications of news and advertisements the papers will be able to devote themselves to the criticism of men and events, the enlightenment and amusement of mankind, and the molding of public opinion. Papers would live then, not because they controlled the press dispatches or had a large advertising patronage, but because they said something the people wished to hear, because their editors were leaders of thought, selected by

[1] Our helter-skelter competition has given us about 1 paper to 700 voters—in many an eastern town 1 to 300 voters. Cooperation and common sense will doubtless greatly diminish the number in the future. We shall have a paper to represent each great interest, as the Christian Advocate represents the Methodists, the Examiner the Baptists, the Outlook the Congregationalists, the Youth's Companion the instruction and entertainment of youth, etc. The church papers will probably some time unite into one representative of Christian life. We shall have other papers that represent the thought of great men, as the Liberator represented Garrison. But the great mass of local papers that people take to keep on the smooth side of the editors will die the death that sooner or later awaits all rubbish.

the subscribers to represent large cooperative interests as is now the case with the church papers and trade journals, or drawn to the work by their love of it and adopted by a wide constituency because of demonstrated power. In the good time coming we may hope to get the bulletins of news and advertisements and papers full of the best thoughts of leading thinkers on current events, and all unstained by words we should not wish impressed upon the brain of a lovely child. Why does not some one make a start right now by publishing a daily paper on as high a plane as the Youth's Companion weekly, containing the substance of legitimate news, with calm, strong comment, and introduce it into every school in the Nation, to be read and discussed in a sort of school congress half an hour or so each day? It would do more to teach the boys and girls to think and talk than all the textbooks in the world, and growing up on such wholesome food when they came to be men and women they would demand a clean and honest press; pardon the digression—it's all a part of the great subject of the distribution of intelligence.

Chapter VII.—Electrical Politics and Telegraph Aristocrats.

CORRUPTION—BRIBERY—TELEGRAPH FRANKS—CONGRESSIONAL PROFITS—DANGEROUS POWER IN THE HANDS OF A FEW INDUSTRIAL DUKES.

Misgovernment and political corruption are evils to which the private telegraph contributes. Long ago the president of the Western Union said:

"The franks issued to Government officials constitute nearly a third of the total complimentary business. The wires of the Western Union Co. extend into 37 States and 9 Territories within the limits of the United States, and into 4 of the British Provinces. In all of them our property is more or less subject to the action of the National, State, and municipal authorities, and the judicious use of complimentary franks among them has been the means of saving to the company many times the money value of the free service performed." [1]

This is a clear confession of deliberate and systematic and successful effort to influence legislation and administration through personal favors granted to legislators and public officers—in other words, a plain confession of habitual bribery, stated not in penitence, but in pride and boastfulness. One who has studied Western Union history is not surprised that it should resort to bribery to accomplish its purposes; but that it should deem a public statement of its crimes consistent with its safety is suggestive of startling inferences concerning the company's opinion of the people and their governments and its power over them. The telegraph franks are a very successful imitation of the political tactics of the railways with their free passes and rebates. But the railways have sense and conscience enough left to be ashamed of corruption, and seek to hide it, instead of openly exulting in it.

The Western Union does not confine its political efforts to the "judicious" issuing of franks. Congressman Charles A. Sumner, of California, when a candidate for reelection to Congress, was defeated by Western Union influence because he had earnestly

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[1] Report of 1873. See also Wan. Arg., p. 164; Creswell's Rept., 1873, p. 49; Voice, May 30, 1895, p. 1, etc. The passage is constantly cited by writers and speakers dealing with the telegraph, because of its astounding nature and implications. I have it on the authority of one of the most distinguished members of the United States Senate that "books of telegraph franks are tendered to every Senator and Member of Congress, and most of them accept the favor." At the very least, the situation suggests, as Judge Clark says, "that Members of Congress and Senators having free telegraphing themselves are not as likely to be impressed with the iniquity of high rates as we who have to pay them, and that the monopoly is alive to the fact that the continuance of their monopoly depends more upon the good will of Congress than upon any argument they can make or any reason they can give." The telegraph franks are worth hundreds, yes, in some instances, thousands of dollars a year to the favored lawmaker. The stoppage of this deadhead bribery would remove one of the great obstacles in the path of telegraph reform. A Congress that enjoys the privilege of free telegraphy will not be likely to vote down the system that gives them so valuable a privilege, in order to exchange it for a system under which they would have to pay for all telegrams outside of the Government's business. But pass a law declaring the acceptance of telegraph blanks a misdemeanor, and our Senators and Congressmen will be able to see the evils of the private telegraph. It would be perfectly right to make the acceptance of franks a cause of dismissal from the House or Senate and forfeiture of office. If I employ an agent C to attend to my business with W, S, Z, etc., and C accepts a gift from W which tends to make him swerve from my interests and conduct my business with W with an eye to W's interests, instead of being wholly loyal to me, such acceptance is a breach of trust and good cause for revocation of the agency and dismissal of C—that is law and common sense. If some strong Congressman will propose such a bill as we have mentioned respecting the receipt of telegraph franks, and show the matter up in its true light as a perennial mortgage of Congress to the Western Union, the bill will become a law, for very few of our Representatives will be bold enough to put themselves on record as openly favoring such shameless wrong and manifest departure from their duty to the public.

In 1884 Vice President John Van Horne, of the Western Union, testified before the Hill committee that the business franks issued in a year would amount to $1,000,000, so that the franks issued to Government officials would amount to $300,000 at least, if they bear the same ratio to the total frankage as in 1873. Recent presidents have not seen fit to bulletin their corruption funds. The amount of franking in any year is a matter of small importance compared to the momentous fact that the Western Union systematically and successfully relies on this insidious sort of bribery to influence legislation and administration in its own interests.

worked for a postal telegraph.[1] Victor Rosewater says that Jay Gould spent $250,000 to defeat Wanamaker's postal telegraph.[2] And I understand from inside information that $1,000,000 felt its way close to Mr. Wanamaker and was ready to drop into his pocket if he would secure the withdrawal of his telegraph bill. Victor Rosewater says further:

"The power which the lobby holds over Congress in such matters is proverbial. I saw clearly the hand of the Western Union when I appeared before the Congressional Committee on Post Offices and Post Roads, March 18, 1890. There was but one member of that committee who was not already opposed to the postal telegraph, that being Mr. Blount, of Georgia. The chairman was very plainly working in the interests of the Western Union."[3]

Mr. Gompers, speaking in 1894 of House Report 2004, Bingham committee (47-2), said:

"This report of the House committee, to which I have referred, reads really more like an indictment of an organized band or guild of robbers in the old feudal days rather than a reference to an organization for the purpose of transmitting hurriedly the necessary business of the country. Let me quote six lines of the committee's report: 'Objection has always been made by the Western Union Telegraph Co. to the establishment of a postal telegraph system controlled by the United States Government in connection with the post-office service of the country, and sundry attempts at the establishment of such a postal system have been defeated by the interposition of agencies and influences unknown by your committee.' The inference is appalling."[4]

Prof. Richard T. Ely, discussing the postal telegraph in The Arena for December, 1895, page 52, declares that "it would remove a great source of political corruption; a source so powerful that it has been claimed that it recently defeated the election of a presidential candidate."

Mr. Sumner, of California, in his speech of February 28, 1885 (page 15), on the floor of the House, charged the Western Union with complicity in two efforts to steal the Presidency (1876 and 1884), and said that "Mr. Hueston, the honest man connected with the telegraph and news monopoly in New York City," would confirm his statements if called to Washington to testify.[5]

The private telegraph has used its political power not merely to control legislation, defeat distasteful candidates, and secure the election of its allies, but is said even to have gone so far as to order a confiscation of the property of the United States to its own use. Such at least is Victor Rosewater's interpretation of the military order of February 27, 1866, by which 14,211 miles of land line and 178 miles of submarine cable established in the South by the Government during the war, and worth between two and three (?) millions, were turned over to the telegraph companies. The order was issued by Gen. Eckert, then Acting Secretary of War and general manager of the Western Union. These lines were ostensibly given to the companies in compensation for lines seized by the Federal auhorities, but Rosewater says that these latter lines had been used against the Government with as much effect as batteries of artillery and were contraband of war, not subject to compensation any more than horses, wagons, guns, and ammunition in use by the enemy and seized by our armies. I do not know the inner facts of the transaction well enough to judge of its motive.[6]

It is not surprising to find that the telegraph giant has fastened its grip on the throat of honest government. The telegraph is managed by the same class of men, and to a large extent the same individuals who manage the railroads and colossal trusts. They are in the habit of buying legislatures and Congresses in the interests of railways, sugar, oil, whisky, etc., and it is perfectly natural that they should adopt the same policy in respect to the telegraph. The leaders and rulers among them are Wall Street gamblers and manipulators, and fraud is as natural to such men as water to a duck, stealth to a tiger, or an ambush to Indians on the warpath. P intrusts his affairs to C; W pats C on the back, treats him with great consideration, does him many favors, and finally suggests that C shall deed the rights and properties of P to W in

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[1] Henderson Com., 1894. I. T. U. Hearings, p. 56.
[2] The Voice, Aug. 29, 1895, p. 1.
[3] Ibid., p. 8.
[4] I. T. U. Hearings, p. 10.
[5] Mr. Sumner said that "Mr. Hueston would testify to the shameless efforts of Jay Gould and others to misrepresent and misreport and otherwise give aid and comfort to a diabolical scheme for changing the true count of the ballots in the Empire State," which was the key of the whole election.
[6] On general principles an effort to indemnify individuals against overwhelming losses thrown on them by war is commendable. The burdens of war should be distributed and should not fall with crushing weight on any individual or group. Whether Gen. Eckert really acted on this principle, honestly and consistently applied so far as he could to all persons who had met with crushing losses, or merely used the plea of compensation in this instance as a cloak for an order securing special benefits for the telegraph interest with which he was connected, I am unable to determine from the testimony before me. (Bingham Com., Rosewater 2-3.)

consideration of past obligations and of W's promise to share with C the proceeds of the transfer. C yields to the tempting prospect and to the pressure arising from the fact that little by little he has already been led to act in such a way that W could ruin him by exposure—the deed is made, W and C grow rich and P grows poor. P stands for the people, C for Congress or legislature, and W for Wall Street, Western Union, wealth on the warpath. Money, lands, bonds, and franchises belonging to the people are transferred by their agents without consideration so far as the people are concerned, and the agents and transferees grow rich while the people grow poor. The people can not have their rights because they do not elect enough men who had rather act honestly and justly than to share directly or indirectly in the proceeds of a steal. Seventy millions of people can not have a postal telegraph to render them cheap and efficient service because it would interfere with the profits of 3,500 stockholders whose agents are cunning enough to take the agents of the people into partnership—if the agents of the people were to vote a postal telegraph they would vote to destroy profits in which they themselves participate.

The twelfth evil that characterizes our present telegraphic system is the dangerous concentration of power and wealth in the hands of a few irresponsible persons. Speaking of the fact that the Western Union in its compact with the newspapers had reserved to itself the exclusive right of furnishing commercial and financial news to individuals and associations, the Hill committee said:

"For the purpose of giving fabulous fortunes to its inside managers and their friends, the Western Union need not send untrue market quotations. It has only to give the true quotations a single hour, or less than that, in advance to those whom it means to favor, and the work is effectually accomplished. No such power should be allowed to exist in this country; the temptation to abuse it is enormous, and will, sooner or later, prove to be irresistible."[1]

The committee continues:

"The Western Union collects the market news every morning in London and Paris, and sends it to New York, whence it is distributed to every mart and hamlet throughout the length and breadth of this land. A fraction of a penny on a pound of cotton is a fortune to any man. They admit no partnership in this part of their business. They tolerate no rival, no control in the supply of market reports to every part of this country. It is a power too important, too vast, to be intrusted to any corporation, to any set of men.

"The telegraph company can raise or reduce the rates. Its control over the press is, therefore, absolute. It has the power of life and death, for the telegraphic news is the vital breath of the daily newspaper. Such a power can not exist without its exerting a pernicious influence upon public affairs, and every observant public man has long perceived the demoralizing influence of this powerful but subtle agency."

Some years ago the following dispatch was received on 'Change in Chicago, purporting to come from San Francisco:

"North winds for past three days damaged wheat greatly. Prospects indicate about one-third crop of this State. Market strong."

This dispatch put up the price of wheat nearly 3 cents in the face of lower markets in Liverpool and New York. It is scarcely worth while to inquire what grounds there were for the sending of such a dispatch. All seemed to disbelieve it, thinking the north wind no worse than the east, or any other wind; but the market went up notwithstanding, and thousands of dollars were gained or lost through this telegram. The reasons for sending it were extensively canvassed on 'Change, and the cry which has been so often raised in the past was repeated, "that the ostensible manager of the telegraphic system, through which this dispatch came, is a speculator in grain and uses the wires to sway the market up or down, as best suits his own ends."[2]

John Wanamaker says:

"The Western Union is controlled by an executive committee of three or four men sitting in their offices in New York. Its wires run all over the country, extending by their connections into every part of the globe. This company controls the market price of each article that is dealt in in every mart in this country. It controls to a greater or less extent all the news, social, political, and general, that is sent over its

[1] S. Rept. 577, p. 18. In reply to a question whether inaccurate reports might not be sent over Government wires, Gardiner G. Hubbard said, "Yes, but there would not be this ability of persons owning the lines to confine information to A and B for two or three hours. Give me the advantage of a couple of hours over other people, and I can make a fortune every hour in the day." (I. T. U. Hearings, 1894, p. 27.) It is true that inaccurate reports might be sent over Government wires, but the temptation would be small, because their accuracy could be so easily and rapidly tested, and the author of a false report would lose future credit with small chance of present gain. It is the ability to discriminate—to send a false report and delay or color the messages sent to test it and the replies to them—to keep a true report from the public a little while after the masters receive it—it is this power of discrimination that gives the owners of a private telegraph their tremendous advantage in the market.

[2] H. Rept. 114, p. 11.

wires, and every important personal telegraphic communication. This corporation is uncontrolled by any law save the interests of its directors."[1]

The concentration of power does not always stop with a group of three or four of the heaviest stockholders or leading officers—the absolute control of the entire Western Union system has been, and may easily be again, centered in a single will.

In 1884 Chairman Hill, of the Senate Committee on Post offices and Post Roads, said:

"It is a well-known fact that one man of those 2,900 stockholders owns more than half the stock of the Western Union."[2]

The National Board of Trade said in 1882:

"This great system of the Western Union, as well as the ocean cables connecting us with the rest of the world, are now virtually controlled by one man, and this individual whose name has become a synonym for unscrupulousness and rapacity, in common with a few others of similar character, now aims at, and has largely succeeded in, controlling the channels of intelligence, of thought, and of commerce in a nation of 50,000,000 of people."[3]

The report quotes United States Senator Windom as saying:

"The channels of thought and of commerce thus owned and controlled by one man or by a few men, What is to restrain corporate power or fix a limit to its exactions upon the people? What is there to hinder these men from depressing or inflating the value of all kinds of property to suit their caprice or avarice, and thereby gathering into their own coffers the wealth of the nation?"[4]

The Manufacturer, in its issue of April 1, 1890, remarked that:

"The strongest argument for the transfer of this business to the post office is that it is now wholly within the control of one man. This individual possesses the power to inform himself of the nature of any intelligence transmitted over the wires, whether it refers to business, to family matters, or to politics. He also has the press of the country at his mercy. No daily newspaper could conduct its business if it should be denied press rates for its dispatches, while its rivals were accorded that favor.

"Such a magnate holds the good name of every candidate and public man in the hollow of his hand. 'The reputation of the ablest and purest public man may be fatally tainted in every town and village on the continent by a midnight dispatch.'"[5]

The Ramsey committee says:

"The power of inspecting the correspondence of the nation, of affecting the markets of the country, of influencing public opinion and action in any important crisis, is possessed by those who control the telegraph."[6]

I have seen a Presidential convention so completely demoralized by a telegram that a man who had the dispatch dethroned the chairman and temporarily captured the convention

On page 5 the report last cited, quotes the New York Tribune as saying, that the man who controls the telegraph (as Jay Gould did and as another equally dangerous man may come to do at any time) is "enabled to speculate on the prices of our leading staples in every market of the world. It will make him master of the press, for the press depends upon the telegraph and enables him, if unscrupulous, to give to the news of the day such a color as he chooses, and thus fatally to pollute the very fountain of public opinion."[7]

Jay Gould is reported to have said that he had rather be president of the Western Union than President of the United States, and no wonder—the bond-issue-gold-reserve trick had not been discovered in his day, and the Chief Executive's powers, except in time of war, and his chances at any time of fleecing the people to line his own pocket were insignificant compared to those enjoyed by the czar of the telegraph.

Even in respect to filling offices the power of the Wall Street king is very great. Richard J. Hinton, a noted journalist, testifying before the Blair committee, said: "I think Jay Gould has more power to elect Members of Congress than the President and the whole of his Cabinet."[8]

The American people would be indignant if anyone should charge them with favoring royalty, creating and sustaining dukes, marquises, lords, and earls, or meekly submitting to titled aristocrats of any grade. There would be a revolution

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[1] Wanamaker's Arg., p. 4.
[2] S. Rept. 577, part II, p. 63.
[3] Report of Nov. 15, 1882, p. 11.
[4] Ibid. Windom's words are also quoted in I. T. U. Hearings, p. 58, by Hon. John Davis.
[5] S. Rept. 577, part II, p. 65.
[6] S. Rept. 242, 42-3, p. 4.
[7] During the Wanamaker investigation of the Postal Telegraph the misleading testimony of Dr. Norvin Green, president of the Western Union, was telegraphed, with all its errors and sophistries, free of telegraph toll to all the newspapers of the New York Associated Press, and it was quite generally published in full. The facts and arguments adduced in favor of a postal telegraph had to pay for transmission and did not get anything like so full a publication. (Wanamaker's argument, p. 140.)
[8] Blair committee, Vol. II, p. 109.

if Congress should confer the title of lord, or duke, or earl on Vanderbilt, Gould, Rockefeller, Morgan, Sage, etc. Lord Gould, Lord Rockefeller, Duke Morgan, and the rest, would soon find the country too warm for their habitation. Yet the essence of royalty and aristocracy is not in the title, but in the overgrown power which one man possesses over his fellows. The board of directors of the Western Union is as truly a body of aristocrats as the lords and dukes of England. A Congress that grants railroad, telegraph, and banking privileges to private individuals establishes a far more powerful ,and therefore more dangerous, aristocracy than any that could possibly be created by the mere bestowal of titles of nobility.

At the very start far-sighted statesmen clearly saw the danger of leaving the telegraph to private control. Postmaster General Cave Johnson said in 1845–46: "In the hands of individuals or associations the telegraph may become the most potent instrument the world ever knew to effect sudden and large speculations—to rob the many of their just advantages and concentrate them upon the few. If permitted by the Government to be thus held, the public can have no security that it will not be wielded for their injury rather than their benefit. * * * Its value in all commercial transactions to individuals having the control of it can not be estimated." It is not an accident that the board of directors of the Western Union is a board of millionaires and poly-millionaires—the bees know where to look for honey.

Postmaster General Creswell speaks of the "abuse of the wires for personal ends by business men controlling them and the vast and irresponsible influence of telegraphic managers over the press of the country."

Postmaster General Howe, after speaking of the wastes and extortions incident to a private telegraph, continues:

"But a stronger reason still why the Government should control the telegraph is found in the fact that it is as potent for evil as for good. Like government itself, it is too terrible to be wielded by other than representatives of the whole people. In the great commercial centers, public stocks, corporate and mining stocks, bonds, and the staple products of agriculture are bought and sold daily to the amount of thousands of millions. In all these markets one great telegraph company wags its tongue incessantly. For all these commodities it is the arbiter of prices. Prices go up and down, according to its inculcations. Whoever controls its utterances may at pleasure buoy a market in which he wishes to sell or break one in which he wishes to buy. That is an agency much too dreadful to intrust to private hands. I am far from asserting that a use so malign has ever been made of this agency. I speak of its capabilities, not of its history. Knowing that it can be so abused, it seemed to be the dictate of prudence not to wait till it is so abused. It is manifest that even when the Government controls the telegraph a falsehood which may sink a stock or float it may still be sent over the wires. But truth will have equal freedom on the lines. In Government hands the telegraph will maintain an exact neutrality between the two fierce parties which, day by day and year by year, contend for supremacy in the markets. In private hands it may become the mere creature, as malignant as mighty, of that party which its owner from time to time chooses to join. If he choose, he may give course to falsehood; and if he choose, he may imprison the truth. Who else can trade in a market dominated by such a power?"

Congressman Gibson says:

"The dangers and possibilities of evil resulting from private ownership of all the telegraph lines in the United States are appalling when considered in connection with times of financial, social, or political peril, No private corporation should have the power to pollute, pervert, or destroy the streams of information on which our people must depend and our Government act. The postal telegraph is necessary to the national welfare. A country that allows private ownership of all its telegraph lines is criminally indifferent to the machinations of fraud, the devices of selfishness, and the possibilities of prejudice, and wilfully tempts fate to strike in the crisis of danger." [1]

Henry Clay made the danger of private ownership an emphatic part of his splendid plea for a national telegraph in 1844. He said:

"It is quite manifest that the telegraph is destined to exert great influence on the business affairs of society. In the hands of private individuals they will be able to monopolize intelligence and to perform the greatest operations in commerce and other departments of business. I think such an engine should be exclusively under the control of the Government." [2]

Such is a part of the overwhelming testimony to the fact that our private telegraph is a gross disturber of the fair distribution of wealth and power. It is one of the big clubs that our modern bandits use to compel the people to give up their money. The great

[1] Letter in the Voice, June 13, 1895.
[2] Quoted by Postmaster General Wanamaker, 1892, Rept., p. 27.

robbers of to-day are not satisfied with the capture of one or two travelers now and then on the lonely highway—our broadcloth bandits must capture the Nation en masse. They want the world, and they know how to get it. They have taken the lawmakers into partnership and had their methods legalized, and called them "right" so long that they have actually persuaded themselves that they are not robbers at all, but "enterprising citizens," and so they are able without a pang to use the railroads, telegraphs, banks, and trusts to fleece 10,000,000 or a hundred millions of people at once, just as their ignorant, uncivilized, unevolved predecessors used a club or a gun to fleece two or three unfortunates. And the farmers and working people generally will have to keep on handing over their surplus wealth to the cunning schemers, until they (the workers) get sense enough to elect men who know what justice is and can remember the cardinal principles of virtue long enough after election to declare robbery to be robbery whether it be perpetrated with a six-shooter in a dark alley, or with a telegraph, a railroad, a bank, a bond scheme, or a trust in Wall Street—and to take the telegraph and the rest of their weapons away from the broadcloth bandits and imprison them in just legislation at honest and useful labor. The fortress of fraud could be carried if we could even elect men who would do no more than give us the initiative and referendum; we can do the rest for ourselves if once we can get the right to vote on the law directly whenever our "representatives" do not represent us.

Chapter VIII.—Private Monopoly an Element of National Weakness and Injustice.

WAR—SOCIAL COHESION—PRIVATE MONOPOLY—ANTAGONISM OF INTEREST—SHUTTING OUT COMPETITION—SUPPRESSION OF INVENTIONS—TAXATION WITHOUT REPRESENTATION.

Our present telegraph system is a menace to the national strength in time of war. The telegraph is one of the most important instruments of war, and the nation ought to own the system on military grounds even if there were no other reason. This argument was presented by the Committee on Ways and Means in 1845 (H. Rept. 187, 28–2), was urged upon Congress by Postmaster Generals Cave Johnson and Creswell (whose views were approved by John Wanamaker in 1890),[1] and doubtless had something to do with Gen. Grant's advocacy of national ownership of the telegraph. The telegraph is the nervous system of the nation. What sort of a nation is it that does not own its own nervous system? Imagine A in a fight with B having to ask a third man C to send a message to his (A's) foot to kick B. C might not be much interested in A's success, or he might even be friendly with B, and the message would be apt to be delayed and the kick come off too late to do A any good. C might even give B a hint of the message before it was sent to A's foot, or he might send a message that would make the foot kick some other part of A's anatomy. We have seen as an actual fact that during the Rebellion the Government's messages to the troops were not safe in the hands of the private telegraph. To a large extent during the war and since, the Government has found it necessary to build its own military lines, thus establishing two systems where one Federal plant would be amply sufficient to do the whole business, military and civil. It is true that in time of war the Government has the right to impress the telegraph into its service, but this is a very expensive and inefficient plan. The servant of C is not as good a medium for A's business as A's own servant. Men selected and paid by Jay Gould can not be relied on to serve the Government as well as men selected and paid by the Government. If so, why not let the king of the Western Union choose the soldiers and pay and discharge them as well as the operators? No general would care to fight the nation's battles with regiments selected and paid by Gould and subject to his discharge. And a private telegraph impressed by the Government would be as inferior to a consolidated system owned by the Government and manned by its servants as armies hired, paid, disciplined, and discharged by Gould, Vanderbilt and company would be inferior to the Grand Army of the Republic.

A private telegraph system is not merely a weakness in war time; it constitutes even in time of peace a very serious breach of the law of coherence, which is a most important element in social strength and evolution. What cohesion is to a bar of iron social coherence is to a nation; wherever antagonisms or repellant forces are at work among the molecules there is a weakness that may in case of strain produce a break. Unity of interests is the cement—the cohesive force that binds the molecules of society together and makes the whole compact and strong. If there's a place in the iron where cohesion is weak we call it a flaw. The antagonism of interest be-

[1] Wanamaker's Arg., pp. 150, 154.

tween the public and a giant corporation constitutes a similar weakness—a dangerous flaw in the structure of society. The antagonism between the corporation and its employees is another flaw. Every great combination of capital or labor that exists for a selfish purpose is like a big knot in a board—it may be very solid and strong in itself but it weakens the board; the lines between itself and the rest of the structure are lines of cleavage.

The case is even worse than these analogies would indicate. The areas of antagonism above referred to are not merely flaws they are areas of corrosion as well; they constitute not only a weakness but a scene of destructive warfare among the molecules and groups of molecules. For 50 years the line between the Western Union and the public has been a line of battle. Investigation after investigation has been made, clouds of witnesses have been called, enormous expense has been entailed. In Congress after Congress the war has been waged. Miles of petitions have been circulated, tons of matter printed, years of speeches delivered, hundreds of thousands of dollars and incalculable energies wasted.[1] Capital, too, has fought the great monopoly to conquer the right to share its enormous gains. Millions of dollars have been spent to build entirely useless competing lines for the sole purpose of worrying the monopolists into buying up the said lines and admitting their projectors to membership in the Western Union. Labor also has added the wastes of its own rebellions to all the rest. Twice the joint between the company and its employees has broken open clear across the continent, and it has cost a deal of money to pay the damages and get the breaks patched up. All the physical wastes and the spiritual neglects, retardations, and debasements that have resulted from these various antagonisms would have been avoided had the Federal Government followed Henry Clay's advice and established a national telegraph in 1844. Weakness, waste, and demoralization result from antagonism of interest. Strength, economy, and development come from unity of interest, partnership, cooperation, public ownership.[2]

The root of nearly all our difficulties with the telegraph is the simple fact that the business is owned by a great selfish monopoly in private control.[3] No one of these elements alone would cause the mischiefs we have complained of, but all combined are capable of any conceivable demonism. In the open field of competition the battle between a given individual or corporation, C, and others in the same business pro-

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[1] The very separation of the work of transmitting intelligence into two distinct branches necessitates waste and conflict. The post office and the telegraph belong together as being parts of the same business. To sever the carrying of intelligence by wire from the carrying of intelligence by mail, and establish a separate plant for each part of the work, is about as sensible as it would be to sever the carrying of passengers and the carrying of freight and establish a separate plant for each part of the railroad business; no it is not quite so sensible, for the post office and the telegraph subtract from each other, and so add direct aggression to the indirect aggression of economic waste: in the hands of a progressive management the already great subtraction might easily go so far that the telegraph would rob the post office of the larger part of its most profitable business, the letter mail between large cities, and leave it only the inferior letter mail and the book and paper carriage on which it makes a heavy loss. Postmaster General Cave Johnson clearly understood the aggression which the telegraph in private hands has made upon the postal business, and the further aggression which it has power to make by lowering rates and adopting more rapid methods between the centers of population. He said in 1845-46: "The department created under the Constitution and designed to exercise exclusive power for the transmission of intelligence must necessarily be superseded in much of its most important business if the telegraph be permitted to remain under the control of individuals. * * * It becomes then a question of great importance how far the Government will allow individuals to divide with it the business of transmitting intelligence—an important duty confided to it by the Constitution necessarily and properly exclusive. Experience teaches that if individual enterprise is allowed to perform such portions of the business of the Government as it may find for its advantage, the Government will soon be left to perform unprofitable portions of it only and must be driven to abandon it entirely, or carry it on at a heavy tax upon the treasury."

[2] Unify the interests of men in such a way that they can know and feel the unity, and they will work together in the common interest. Through unity of interest a lasting coherence and harmonious cooperation is gained. Society is built on such unities and cooperations, and civilization is measured by the proportion they bear to the total of human interests and activities. Unity of interest in respect to a property or business requires common ownership; for if one owns and another does not, the interests of the two will be diverse—the former desiring income from the property, the latter desiring good service at as low a cost as possible. In the case of a property or business affecting a city, State, or nation, the common ownership requisite to unity of interest is ownership by the city, State, or nation affected; i. e., public ownership.

[3] It would probably be enough to say "a great monopoly in private control." In the present state of civilization, the chance that a private monopoly of the telegraph would be managed in an unselfish and philanthropic spirit is hardly one in a billion. Men who think first of the service they can render their fellow men and second of personal profit do not accumulate sufficient wealth to buy the control of the telegraph. Men who do acquire vast property do not regard it as a public trust; we have not got that far yet; our youth are not trained that way; they are taught that is it right to get all they can out of private property; they would not take a man by the throat and compel him to hand over his earnings; they would call that highway robbery; but they will use the mighty power of accumulated wealth in the presence of needy labor to compel multitudes of men to hand over their earnings and do it with a clear conscience; and therein appears one great advantage of public property; the code of morals we teach those same young men impresses upon them the truth that public property is to be administered for the public good, and that it is a fraud to use public property and position for individual aggrandizement; the very same man that will administer private wealth with sole regard to private profit will conscientiously administer public wealth with sole regard to service; with him the rule is private wealth for private profit and public wealth for public profit, profit in the latter case being identical with service; the true rule is, both private wealth and public for the service of humanity.

duces in some degree a unity of interest between C and the public he serves—the public interest requires good service at low cost and C's interest requires that he shall give good service at low cost, because, under real competition, that is the only way he can outstrip his rivals, it is a unity dearly bought, being purchased by endless wastes and demoralizations incident to the struggles between employer and employer and employee and employer, and it is not a complete, hearty, spontaneous, reliable unity, but a partial, reluctant, compulsory, rebellious unity—yet it is a unity of real advantage to the public and vastly preferable to the antagonism that results when C and his rivals combine into a great monopoly and turn all their guns on the public and the employees, who have no longer any competing concern to resort to in case of high rates or bad service on the part of C. The antagonism between C and his rivals affords a certain protection to the public. Unifying the interests of C and his rivals in a private monopoly opens the gap between them and the public—transfers the scene of hostilities. Instead of C *v.* C_1 in a race to please the public, and trip each other up, the case becomes $C+C_1$ *v.* the public. The public says, "That won't do, you rascals; stop that union business and go to racing and fighting again; I've got no chance if you join against me." Antitrust laws are passed and ringing decisions are rendered against monopoly, but every day new combinations are formed in obedience to the great law of industrial gravitation—a higher law than any that Congress can make—a law which expresses the irresistible attraction between rival concerns arising from a clear understanding of the enormous saving of industrial force and the vast increase of profits to be derived from union and cooperation. When men became intelligent enough to understand the advantages of working together in groups of tens, or hundreds, or thousands, great factories are built and large corporations were organized. Now that men are becoming intelligent enough to understand the advantages of more extensive combinations, colossal trusts and monopolies are being constructed. A little further along the road mankind will know enough to make the union all inclusive and thus secure to the fullest extent the benefits of combination and cooperation without the disadvantage of any outstanding antagonism or residual conflict to be intensified by the growth of union on either side of the line.

The public is pinched by private monopoly; it got along better with free competition; but the remedy is not to go backward to competition, but forward to fuller cooperation—keep the monopoly, for it means internal economy, but make it a public monopoly instead of a private one, so that it may mean justice as well as economy. Stopping the war between C and his rivals with all its wastes and debasements is an admirable thing—but the advantages of the union ought not to be monopolized by a few individuals, nor its strength become a means of extortion in their hands; the benefits of these unions should be justly distributed over the whole community, which can only be done satisfactorily and certainly by putting the ownership of the union in the community.

It may be thought that justice and the public good could be attained by careful legislation controlling the telegraph,[1] but that is a mistake—it is easier for the telegraph to control the law than for the law to control the telegraph in the hands of private monopolists. Usually their influence with our legislatures is sufficient to enable them to have the law made as they wish. If not, they can almost always defy it with impunity—refuse compliance entirely, ignore the statute, or render half-hearted, inefficient, worthless obedience, worse than open defiance—and if suit is brought to enforce the law they resort to all possible delays, technicalities, and annoyances, escape through the disagreement of a jury or a quibble in the judge's charge, or if at last the case is decided against them they pay the fine or damages and keep right on breaking the law, quite ready to have the litigation all over again as many times as may be necessary to tire out their enemies. Two laws only are strong enough to grapple with corporate monopoly—the law that forfeits the franchise for unlawful conduct, and the law that takes the franchise for public use—those are the laws we must get enforced, for they alone can do the work with certainty and completeness. Regulation is a clumsy,

[1] National legislation forbidding the consolidation of telegraph lines and the watering of stock is suggested by some who recognize a portion of the evils of the present régime, but do not wish to change the system entirely. In regard to this suggestion the New Haven Palladium says: "The ineffectiveness of legislation to prevent the consolidation of competing railways has too often been illustrated to leave any ground for expecting lasting relief from that source. As in the past so in the future will corporations find a way to circumvent the law. The only hope is in a competition that can neither be bought off nor consolidated out of existence. The Government alone can secure such competition by constructing a postal telegraph." We may add that the law of 1866 expressly forbade consolidation of telegraph companies, but it has not had the slightest effect—the companies have consolidated regardless of the law. (For statements by Mr. Hubbard, Mr. McCabe, and others showing the impossibility of stopping discrimination by regulative measures, see I. T. U. Hearings, 29, 33, and 46.) The Hon. Marion Butler hit the nail on the head as usual when he said that regulation was "merely attempting to palliate something without removing the cause that is hostile to good government." (Id., 46.) As for the absolute economics that would be affected by union with the post office, no one dreams that they could be achieved by regulation.

costly failure. You pay one man to do the work and another man to watch him. You hire a horse to draw your load and then engage another horse to run alongside and kick the first one if he balks or bites his mate or throws mud over the dasher. You don't get rid of the antagonism of interest between the monopoly and the public; you only give the monopoly a new motive to corrupt your officials, and add a few names to the salary list you have to pay.

Even without corruption the monopoly can often evade the law. It can keep its books in such a way as to give an appearance of value to stock that is really water. Once issued and sold in part to bona fine purchasers for value, and the courts will refuse to sustain a law that cuts off reasonable dividends from the stock, water or no water. It is a mere matter of bookkeeping to defeat in the courts any law reducing the telegraph tariff to anything like the just level; and as for provisions relating to service or treatment of employees, it would probably cost four times as much to enforce them against an unwilling management as all obtainable results would be worth. The only way that regulative measures could be successful would be to make them so stringent that the directors of the company would become practically the agents of the people, bound to manage the business in the interest of the public. Such measures would amount to confiscation to public use—a sort of public ownership without compensation, for control is the essence of ownership—an unjust public ownership, and unstable and inefficient, because the trustee would be out of accord with the cestui, would serve him unwillingly, and take advantage of every opportunity to beat him. As we have before remarked, one D, elected and paid by W to serve W and compelled by G to serve G, will not be as reliable a servant of G as one elected and paid by G. Regulation can not transform the telegraph into a service of the people carried on for the public benefit instead of the benefit of the magnates, unless the regulation is pushed to practical confiscation, and even then it will be the lame, reluctant, insecure, half-way service of a conquered province. The interstate commerce act and the antitrust law are good examples of the fate awaiting efforts to regulate or control monopolies—dead failures both of them in respect to the main purposes of enactment—a heavy drain on the public purse, with almost no benefit except the aid the experience gives in teaching our people that regulation will not accomplish the good they desire.

The owner of a business is going to control the business in his own interest, not in your interest. The owner of the drug store down at the corner is not going to sell you goods at cost; he is going to make all he can out of you. You must go into partnership with him or open a store of your own if you want to get goods at cost and be sure of their quality. It is a good deal better for you to own a flourishing business yourself than to have some one else own it all. And these simple facts are as true of Uncle Sam and the telegraph as they are of you and the drug store. If the people want the telegraph run in their interest they must own the telegraph. If you had a chance to vote yourself into partnership in a business the profits of which were six or eight millions a year, and could do it without injustice to anyone, since a partnership right at your option was reserved to you in the deed that granted the franchise, wouldn't you cast the vote? I guess you would. Isn't it queer Uncle Sam doesn't do the same thing?

The fact that private monopoly is a potent factor in the causation of telegraphic evils is fully recognized in the reports and discussions of the subject. The Committee on Railroads said:

"In order to intelligently conclude as to the proper remedy for the evils sought to be cured, to wit, the great existing monopoly of the business of transmitting telegraph dispatches, etc."[1]

Postmaster General John Wanamaker told the Bingham committee that the Western Union "practically controls the business of telegraphing in this country and between the United States and foreign countries."[2] And in his printed argument he quotes approvingly the words of Isidor Rayner, chairman of the Committee on Commerce:

"The great question that underlies the discussion of this measure [the Glover telegraph bill] is whether we are not in the hands of a monopoly that not only has the right to fix its charges arbitrarily but can crush opposition whenever it encounters it. Of these monopolies I submit that the telegraph system of this country, substantially owned and controlled by one man, is the worst and most dangerous of them all. * * * It is no longer safe or expedient to intrust into the hands of one overpowering monopoly the telegraphic business of this country. It is a power that not only can be used but has been perverted for purposes hostile to the best interests of the people. The markets of the country, its finances, and its commercial interests to so large an extent depend upon the honest and honorable administration of the management of the business of this company that the people are in no mood to repose a trust of this character any longer without competition in the hands of

[1] S. Rept. 805, 45-3, p 1.

[2] Bingham hearings, p. 2.

a stock-jobbing corporation, whose managers, in the nature of things, have not the slightest interest for the public good, but are alone concerned in the aggrandizement of their own fortunes."[1]

It is true that the Western Union is not the only company in operation; there are little companies here and there that do a small local business, and there is the Mackay concern, delusively called the Postal Telegraph Co., which is the only outstanding system capable of substantial competition with the Western Union, and with it the Western Union has an agreement that prevents competition. Wanamaker says:

"Many telegraph companies have been established from time to time, but to-day there are but two independent companies. All but one have been in some form identified with the one corporation, and the one to be excepted, that is not yet known to have surrendered, is admittedly operated in concert with the other by joint traffic agreements."[2]

The Western Union also had "a compact with the Bell Telephone Co. by which the Bell company is restricted in the use of the telephone so that it will not come into competition with the telegraph."[3] This compact has now expired, but a continued understanding or harmony of interest prevents competition. The Western Union has contracts with the railways excluding other telegraph companies from the privileges enjoyed by the Western Union in respect to right of way, freight rates on poles, wire, etc.[4] We have already seen how the understanding between the telegraph monopoly and the news monopoly works to sustain both and "make them," as the Hill committee says, "practically, as against the general public, a single corporation."[5]

Mr. McKinley said to the Bingham committee:

"The Western Union Telegraph Co. have appeared here against this bill (the Wanamaker bill, merely asking that the post office might have the right to rent wires from a private company—from the Western Union if they would supply the lines). We are not surprised at the attitude of this company in relation to the proposed legislation. They know the profits on the business and hence will do their utmost to keep competition out of the field. They desire the monopoly of the telegraph business of the future as they have had it in the past. They, therefore, will, as a matter of business, place every obstruction in the way of this contemplated legislation."[6]

Such are a few of the many striking passages dealing with the monopolistic character of our telegraph system.

It is this fact of a virtual monopoly in private hands that has enabled the Western Union to continue its exorbitant charges, its poor service, its suppression of inventions,[7] its tyranny over the press, and its enormous power and profit. Competition among

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[1] H. Rept. 955, 50-1, p. 2; Wanamaker's Arg., p. 5; I. T. U. hearings, p. 34; The Voice, Aug. 8, 1895, p. 1.

[2] Postmaster General's Rept., Dec. 3, 1892, p. 24. The admission of the existence of such an agreement between the two companies was made by Dr. Norvin Green, president of the Western Union, in his second testimony before the Bingham committee, p. 2. See also I. T. U. Hearings, p. 39, statement of Congressman Maguire: "The Western Union Telegraph Co. and the Postal Telegraph Co. having completed their systems, and finding that there was still a very large margin which they could divide between them above interest on the actual cost of the plants of both companies, formed a sort of pool, and proceeded to charge the old prices, rendering practically no better service than was rendered originally by the old company, and not at all benefiting the people."

[3] Victor Rosewater, in The Voice, Aug. 29, 1895, p. 1. (See Elec. Eng., Aug. 28, 1895.)

[4] Testimony of Dr. Green before the Hill committee. See S. Rept. 577, or the quotation in The Voice, June 6, 1895, p. 8. Railway men tell me that the interlocking of railway and Western Union interests would of itself render successful competition with the Western Union an impossibility in respect to the greater part of the country. In many cases the Western Union builds lines and supplies machinery, railway employees run the offices, transact railway and commercial business, turn over 50 per cent of the receipts to the Western Union, and carry all Western Union material and employees free. On the other hand, the Western Union contracts to forward railway messages free. The managers of the Western Union have great railway interests—the managers of railways are largely interested in the Western Union and its profits. As against the people, the railroads and the telegraph constitutes substantially one corporation.

[5] S. Rept. 577. The Voice, May 30, 1895, p. 8. I. T. U. Hearings, p. 6. "The moment this bill (establishing a postal telegraph) becomes a law, that moment will the news monopoly be broken."

[6] Bingham Hearings, McKinley's testimony, p. 29.

[7] Postmaster General Wanamaker, in his argument, pp. 11, 143-145, gives a list of 16 inventions practically suppressed in one way or another by the Western Union. They are of little value to the country at present, because they are shelved and refused admittance to their proper place in active service. Some of them are potentially of vital importance, and if given their true place as part of the active telegraph plant of the country would cheapen and quicken and improve the transmission of intelligence to an astonishing degree (as will appear hereafter); but the people can not have the benefit of them in any substantial degree until the Western Union has got the wear out of its old plant. Mr. Wanamaker says: "I have had enumerated perhaps a score of devices already patented for the purpose of cheapening and quickening the telegraph service which find no use and no profit under the present conditions. I am sure that many of these inventions are good, but they can not be got into operation with the field monopolized. The public can not have the benefit of this rare class of brains, nor can the inventors find a deserved remuneration for their work. The Western Union Co. having control of the telegraph business has no use for devices which cheapen and quicken the telegraph service and warrant a claim for reduction of rates (at least if the adoption of the invention would throw the present lines and machinery out of use to a large extent, and so cut a slice out of the company's investment, making considerable expenditure necessary for a new plant in harmony with the improved methods of transmission). The public, not knowing what it misses, can not become aroused to the defects in methods now in vogue. If once a break is made in this rampart of telegraph monopoly, not only will the men and women who build and use the telegraph find a better market for their skill, but inventors, knowing that their cases are to be tried before an impartial court, will also

private companies is out of the question; it has been tried scores of times and has always failed because the companies find it more profitable to combine than to fight; the Kilkenny cat performance may be very amusing to the public, but is not so satisfactory to the cats. With private competition wasteful and impossible and private monopoly fraught with danger and pregnant with evil, there is nothing left but public ownership.

The last point to which the plaintiffs invite the attention of the honorable court upon this branch of the subject is the fact that private monopoly means taxation without representation. The monopolist is able to charge more than his service would be worth in a fair competitive market.[1] The difference is not given in exchange for value received, but is a tribute to power—a tax levied by a privileged class, industrial kings and aristocrats, and collected from the people by compulsion of their necessities—a tax that is levied and collected by a power in which the people have no representation and in sums so great that the tax in resistance to which the patriots of seventy-six took arms was but a trifle in comparison—a tax for private purposes without even the pretense of being levied for the public good. Ponder well this startling fact, that private monopoly involves the power of taxation without representation and for private purposes, a power which the legislature can not lawfully confer upon any man or set of men, because it does not possess any such power itself. It can tax or authorize taxation for public purposes only,[2] and taxation for the benefit of an enterprise in private control is not for a public, but for a private purpose, and is beyond the sphere of legislative power.[3] It follows that every grant of a franchise or special privilege is a breach of trust, an act in excess of the authority possessed by the agents of the people, a violation of the fundamental principles of free government, because it tends to establish a monopoly, which, as we have seen, involves taxation without representation and for private purposes, a double infringement of freedom. For centuries the courts have recognized the inherent injustice of monopolies and have declared them void.[4] Even the sovereign power of Queen Elizabeth was held incompetent to create

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find a spur to better efforts." (Wan. Arg., p. 11.) The Western Union did adopt the quadruplex 25 years ago, because it greatly increased the capacity of their wires with scarcely any additional expense, but since that it has made no advance, except to import the Wheatstone system from England and use it to a small extent.

Among the inventions kept out of use are multiplex systems, by which 8, 12, or even 20 messages can be sent on a single wire; simultaneous systems, by which the same wire may be used at the same time for telegraphic and telephonic communications: autographic systems, by which the message is reproduced in the handwriting of the sender and a diagram or picture may be sent by telegraph; printing systems, which transmit the message in Roman characters instead of dots and dashes; automatic systems, which send thousands of words a minute without any operator at all, the messages being written on typewriters in the telegraph office (or the office of the merchant, lawyer, etc., who sends them), put into a machine (just as a roll of music is put into an orchestrion), and reproduced at the other end in Morse characters or Roman letters corresponding with the original, a whole sheet full in a few seconds at a cost not exceeding 5 cents per 100 words, a fact established after ample experiment and attested by authorities of the highest character, as will be shown hereafter. No wonder Congressman Charles Sumner told the Committee on Post Offices and Post Roads, Mar. 25, 1884, that "the Western Union has suppressed inventions," adding "it has done so systematically."

[1] Under real competition consumers pay the actual cost of the service plus a moderate profit: under monopoly they pay the actual cost plus all the traffic will bear. Competition tends toward the lowest price that will allow capital any interest sufficient to induce it to work. Monopoly tends toward the highest price the people will pay rather than go without the monopolist's service.

[2] United States Supreme Court in 20 Wallace, at 664, 106 U. S., 487. See also 58 Me., 590; 2 Dill., 353, Cooley on Taxation, p. 116, and cases there cited.

[3] Judge Dillon in 27 Iowa, 51. See also 58 Me., 590.

[4] 11 Coke, 84 b; 79 Ill. 346, at 350; 35 Ohio St. 666; 50 N. J. Eq. 52, and 68 Pa. St. 173, on the coal combine; State *v.* Standard Oil Co., 30 N. E. Rep. 279, 290, Ohio, March, 1892; Gibbs *v.* Consolidated Gas Co. of Baltimore, 130 U. S. 396; People *v.* Chicago Gas Trust, 22 N. E. Rep. 279, Ill. Nov. 26, 1889; see also 121 Ill. 530; Richardson *v.* Buhl, 77 Mich. 632, The Diamond Match Trust case; The Sugar Trust cases, 7 N. Y. Sup. 406, and 156 U. S. 1, 11, and 29 Nebr. 700 (May 28, 1890), The Whisky Trust case: all affirming that trusts, pools, combinations, and contracts of all kinds that tend to create or maintain a monopoly are void as against public policy. It is established law that the grant of a franchise to a private corporation is a contract (Dartmouth College case, 4 Wheat. 518), so that not merely the principle but the letter of these decisions covers such grants and declares them void. Yet, strange as it may appear, these very courts that affirm the legislative grant of a franchise to be a contract and also affirm that all contracts creating monopolies are void, nevertheless sustain monopolies created by the aforesaid grants—the courts didn't think about their monopoly decisions when they called these grants contracts, they didn't mean to make them subject to that part of the law of contracts, but only to the part that holds the grantor bound. The very same sort of a grant if made to a town or a city is not a contract at all and does not bind the legislature—for example, the grant of a right to establish a ferry if made to a private corporation is binding and can not be repealed or altered unless power to do so was expressly reserved, but if made to a town or city the grant may be repealed or altered at the pleasure of the legislature (10 How., U. S. 511; 31 N. Y. 164, 202-3; 16 Conn. 149; 13 Ill. 30, etc. See Dillon on Municipal Corporations, sections 52, 54, 68). In other words, a grant to 10 or a dozen individuals incorporated into a company is a sacred obligation, but a grant to a million individuals incorporated into a great city is no obligation at all—the grant of a telegraph franchise to the Western Union or Gold and Stock Company is an unchangeable contract, but the grant of a telegraph franchise to the city of New York would be changeable and repealable at the pleasure of the State. Grants to private corporations are contracts when the court is considering the application of the constitutional provision against impairing contract obligations, and not contracts when the court is considering the principle that contracts tending to create monopolies are gainst public policy—contracts so far as necessary to enable the corporations, to use the Constitution asa protection against the public, not contracts when it comes to principles intended to protect the public—contracts when the interests of the private corporation possessing the franchises require them to be, and not contracts when those interests point the other way—to one not thoroughly familiar with our jurisprudence it might almost seem as though the monopolists had made the law, it favors them so much.

monopolies, because they were detrimental to the interests of the people. By what authority, then, can it be done by the agents of the people elected to conserve their interests? It is fundamental law that an agent must be loyal to the interests of his principal.

The fact is that those who have obtained turnpike, canal, railroad, telegraph, telephone, etc., privileges were cunning enough to call them "franchises," obscure by specious argument their real effect, and back them up in court and legislature with powerful influences until the habit of making such grants became established and the weight of precedent came to their aid. The consequence is that we have the curious spectacle of a Government creating monopolies with one hand and trying to choke them with the other—declaring absolutely void all monopolies formed by agreement among men because monopoly is in its nature contrary to public policy, and sustaining exactly similar, in some cases identical, monopolies established by the agents of the people without an atom of authority to do it, but through a flagrant breach of their trust, and in violation of the fundamental principles of free institutions which, as the highest courts are unanimous in declaring, can not be set aside even by a direct vote of a majority of the people.[1]

The clearest principles of constitutional jurisprudence inherent in the very nature of republican government require its power to be used for public and not for private interests and purposes—monopoly is against public interest (as appears from its power of limiting freedom of commerce, of exacting more than an equivalent for service rendered, of transferring to B the property of A without consideration, of taxation without representation and for private purposes—its antagonism to public policy on these and other grounds being fully illustrated and established by the cogent reasoning and strong justice of a long line of decisions from the days of Elizabeth to the present time), therefore the fundamental principles of republican govenment are broken every time a franchise is granted and every moment a private monopoly is allowed to exist. Equal rights to all, special privileges to none, is the only rule consistent with liberty and justice. It is one of the fundamental axioms of governmental philosophy, and was recognized by the most eminent jurists long before the Omaha convention made it the battle-cry of a new crusade. For example, Judge Cooley, whose name yields to none among American jurists, says on page 485 of his great work on Constitutional Limitations:

"Equality of rights, privileges, and capacities unquestionably should be the aim of the law; special privileges are always obnoxious."

Government is a union of all for the benefit of all. It is a cooperative effort to which all classes of the people contribute, and its powers should be used impartially.

If a group of farmers and artisans, A. B, C, D, etc., should elect M to direct the affairs of the group, and M should grant X the exclusive privilege of growing wheat, or of grinding it into flour and baking it into bread, it would be equivalent to granting X the right to rob the community each year of an amount equal to what they would pay above cost in preference to living in wheatlessness.[2] It is the same thing in principle for a Congress or a legislature to grant an exclusive telegraph franchise. On the other hand, it is wasteful to grant two or more telegraph franchises over the same routes, and ultimately the two or more will unite and establish a substantial monopoly by virtue of their power of crushing opposition. Monopoly there must be; it is wrong for it to be in private hands; therefore it must be in public hands. The people must keep their franchises, or regain them if they have passed into private control. Monopoly involves the power of taxation, which can justly be exercised only by the public for the benefit of the public. Therefore monopoly must belong to the public. The public ownership of the telegraph franchise is demanded by the inexorable logic of justice and liberty, and is an essential corollary from the clearest and most axiomatic principles of constitutional law set forth and expounded century after century by the great jurists of Europe and America.

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[1] It must be remembered, however, that long acquiescence by practically the whole people and the multitudinous interweaving of the rights of innocent persons has made it impossible now to declare these grants void without great injustice. The people having so long permitted these legislative franchises and monopolies ought not to confiscate the rights and properties that in good faith have clustered about them or grown out of them.

[2] It may be said that the community would still retain the right to regulate the prices that X should charge. That is true, but the right of regulation has to be exercised through M, and X owns M by making M a sharer of his booty; and even if the farmers were fortunate enough to elect an incorruptible man, or wise enough to take into their own hands the right to decide on the question of fair rates, X would still have the courts behind him, and by means of stock watering, flexible bookkeeping, influence, and a "judicious" use of money, he would be pretty safe in the time-honored privilege of monopolistic extortion. If the farmers should by any possibility succeed in fixing the rates to suit themselves, they would simply substitute the injustice of a contract in which the price is fixed by the buyer without competition, in place of the injustice of a contract in which the price is fixed by the seller without competition.

CHAPTER IX.—SOLUTION OF THE TELEGRAPH PROBLEM.

THE REMEDY—PUBLIC OWNERSHIP—UNITY OF INTEREST—FAILURE OF REGULATION—EXPERIENCE OF THE WORLD—RATES, DISTANCE, WAGES, MAIL SERVICE, TELEPHONE, ETC.

Section 3: *The remedy is public ownership.*—We have seen that the law of economy condemns competition in the telegraph business,[1] and that experience proves it to be substantially impossible. The alternative is monopoly, of which there are two sorts, public and private. We have seen that monopoly involves the power of taxation, which is an attribute of sovereignty., wherefore monopoly must belong to the people, in whom alone dwells the right to sovereignty[2]—to permit a private corporation to hold a monopoly is to permit a transfer of sovereignty from the people to a private corporation. We have seen that private monopoly confers upon private individuals and corporations the power of exacting payments beyond the value of the service rendered, the power of exacting tribute, the power of taxation without representation and for private purposes, a power beyond the limits even of soverignty itself in a free country, a power that is of the very substance of despotism, a characteristic attribute of imperialism, the right hand of tyranny.

We have seen that private monopoly means antagonism to public interest plus power to make the antagonism effective. While A, B, and C are fighting each other for the market, they cater to the public; but when the sellers combine and bury their antagonisms in a monopoly, the antagonism between seller and buyer comes to the front.[3]

The monopolists do not want the antagonism of seller versus seller; the people do not want the antagonism of monopoly versus the public; the right thing is for both parties to recognize the fact that each antagonism is bad, and come together on a plan to abolish them both. The antagonism between A, B, and C has been overcome through a union of ownership and control among A, B, and C, and the antagonism between this union and the public must be overcome in the same way. The old antagonism no longer exists, because A, B, and C are part owners of one enterprise and its profits. When A, B, C, and P (the whole people) are partners in the enterprise and its profits the antagonism between seller and buyer will vanish in respect to that enterprise, and it never will vanish until such a partnership is formed; antagonism will exist until the opposing interests are harmonized, which can only be done by welding them into a union or partnership with a common control in the interest and for the profit of all concerned—such a partnership with a city, State, or nation as a party is public ownership.

A combination, trust, or monopoly is very advantageous to those inside, but very disastrous to those outside of it; let the people get inside.

We have seen that regulation can not cure the evils of private monopoly, because it does not destroy the antagonism of interest that is the root of those evils.[4] Regulation is a wrestling match; the people may get the monopolists down sometimes, but he will be forever on the squirm, ready to flop his antagonist at the earliest opportunity. Regulation is clumsy, costly, ineffective, unreliable; and if by any miracle it should accomplish its purpose of getting the business done as the public wishes it done, it would be unfair. It isn't fair for P, who does not own the business, to compel M, who does own it, to run it for P's benefit or according to P's interest. The man who controls a business for his own interest is the real owner, and P ought to buy the business before he assumes the privileges of ownership; if not, he is guilty of confiscation

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[1] See Chap. VIII. The law of economy condemns competition in any business. Competition means antagonism, struggle, waste, friction, collision, wreck. Competition means helter-skelter, haphazard, planless production with its innumerable needless undertakings and useless duplications. Competition means the devitalization of the great mass of workers by denying them the stimulus born of an interest in their work and the profits of it.

[2] Congresses and legislatures exercise the powers of sovereignty, but not in their own right—they simply act as agents of the people, who alone own sovereignty, possess its attributes in their own right, and have just power to use them for their own purposes. Legislatures must use the sovereignty intrusted to them for the benefit of the people and not for their own personal advantage or the advantage of any individual or association, and the deepest, rashest, most insidious breach of trust they can commit is to crown and sceptre the soulless greed of a great corporation.

[3] While out for an airing one day P saw B and W rolling over and over on the turf in fierce endeavors to strangle each other. They cried out to him, "Dear P, do save me from this heartless villian: he'll choke the life out o' me 'f you don't come to my aid. Oh, dear P, I'll do anything for you if you'll only save my life." P, being of benevolent disposition, went to the rescue, prevented the threatened catastrophe, and gave orders that B and W should each be comfortably housed and well cared for. A little while afterward P was walking along the same road, when a couple o' ruffians, armed to the teeth with clubs and guns, commanded him to halt and deliver his purse. P looked at his assailants and saw with astonishment that they were B and W, whom he had rescued a few weeks before. "Why, gentlemen," said he, "don't you know me? I saved your lives not long ago. You surely will not rob me in return for my kindness." To which they replied, "No use talkin', old boy; jest han' over the dust, that's all. We're in the same gang now—there ain't but one deal, no more, an' you ain't in it. Shell out an' move."

[4] Chapter VIII.

or theft. A monopoly will be run in the interest of the people only when the people control it. To whatever extent public control or control in behalf of the people, does not oust private control, or control in behalf of individuals or corporations, to that extent the business will not be run in the interests of the public, but in the interests of individuals and corporations.

If the people buy or build the business they have a right to control it in their own interests, but if they oust private control by legislation, transforming the managers into public agents bound to run the business in the public interest, they have practically confiscated the business to public use. As a rule, in America to-day, a business will be run in the interest of him with whom rests the final control of it. If it is to be run in the public interest the public must control it; control in one's own interest is ownership; public control in public interest is public ownership; the condition of business for the public benefit is public ownership. It may be public ownership by creation or purchase—honest, stable, well-based ownership—or it may be dishonest, insecure and dangerous public ownership by confiscation through carrying regulation to complete success, if such a thing were possible, but public ownership in some way; public control in public interest by some means, it must be, if public and not private interests are to be subserved by a business not in the hands of altruists.

The private monopoly of a business means that the terms of all contracts relating to that business are determined by one party. So far as regulation does not exist or does not take effect, the monopolist makes the contract and fixes the price, and the public has nothing to say about it—so far as regulation does take effect, the public makes the contract, becomes itself the monopolist (without compensation to the ousted party), and the former monopolist has nothing to say about it. It is rare, however, that a monopolist is so condescending as to permit a regulative statute to take effect except upon the surface, for the sake of appearance and to lull the dear public to sleep.

The possibilities of regulation were thoroughly canvassed in England during the struggle between the companies and the people, 1865–69, and the conclusion was that nothing but public ownership could be relied on to give the whole population the benefit of efficient telegraphic communication at minimum rates.

The argument for a national telegraph does not rest solely on the ground of unifying interests and removing private monopoly with its power of taxation for private purposes and without representation, but also on the ground of experience demonstrating its superiority, the movement of civilization in the direction of national cooperation in the conduct of affairs of national extent, the trend of thought and events in that direction in the United States, the overwhelming public sentiment in favor of a national telegraph, the constitutional duty of the Federal Government to use the telegraph in the conveyance of the people's correspondence, the aid a national system will give toward a better diffusion of wealth, a fuller development of business and social life, and a more perfect national coherence in peace and in war, the economies it will effect, the lower rates, improved service, wider facilities, better condition of employees and the press, cessation of telegraph discrimination, fraud, and corruption, the impetus that will be given to civil-service reform, and many other advantages that will appear when we come to that part of the subject. Let us first put some questions to history.

Section 4. The experience of the world affords conclusive evidence in favor of public ownership of the telegraph.

Belgium, Holland, England, New Zealand, etc., tried private ownership of the telegraph, found it unsatisfactory, changed to public ownership and found the transfer beneficial in every respect.

France, Germany, Norway, Sweden, Switzerland, etc., began with public ownership and have seen no reason to desire a change—economy, good service, and general satisfaction have characterized the national telegraph service beyond the sea.

In the United States the telegraph is still in private hands, and its history has been the history of waste, extortion, poor and inadequate service, and public dissatisfaction vigorously expressed in a multitude of bills, petitions, speeches, investigations, and memorials that have besieged Congress for fifty years.

Do not fail to grasp the full significance of these tremendous facts—every country, Kingdom or Republic, that began with public ownership has had unbroken telegraphic peace and satisfaction, while the countries that have made trial of the private system have found it so imperfect that they have abandoned it for public ownership or made a strong effort to do so, backed by a public sentiment that nothing but the money and influence of a gigantic corporation could have resisted.[1]

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[1] This all-important fact, that the stern logic of experience is pushing the peoples into public ownership, is further illustrated by the history of the telephone and the railway (City for the People, p. 208), and by the rapid development of municipal ownership of water, gas, electric light, and street railway properties. (Ibid., pp. 188–189, 203–210, 230, 530.)

England tried private ownership for a quarter of a century and she, too, had a telegraph war and waste, extortion, delay, error, inadequacy, and oppression until she changed to public ownership, when the trouble ceased, and for 26 years her postal telegraph has been a pride and a glory, while our disease has gone from bad to worse. The fact that Great Britain began with the private telegraph and gave it 25 years and more to show what it could do, that she found it unendurable and changed at large cost to the public system, which proved a great success, and after a trial of more than 25 years is acknowledged by all to be incomparably superior to the old plan—this fact of the thorough testing in the same country of both methods of dealing with the telegraph, and the further fact that the said country is very like our own in government, language, customs, sentiment, etc., give the history of the English telegraph a peculiar value for us, and after a few words about the telegraph in other foreign countries, we will return to Great Britain and give its experience with sufficient detail to make its teachings emphatic.

The results of public ownership of the telegraph and telephone may be briefly stated thus: [1] The rates are much lower than under the private system and the facilities better. A Government telegraph goes where private enterprise will not go. The popular use of the telegraph is vastly greater than with us. The proportion of social business is six, eight, ten times what it is in the United States. The general service is more efficient, swift, and accurate than with us. The public telegraph has proved of incalculable value in the apprehension of criminals, being used much more freely by the Government than the very costly service of a private system is apt to be. So marked is this utility in Europe that the criminal classes know the telegraph as "the fingers of the police." The employees are better treated, and the aim is to improve their condition from year to year. There is no telegraph discrimination, no telegraph lobby. There are no waterings of telegraph stock, no dividends on real or fictitious stock, no strikes of operators, no blackmailing lines or wasteful construction. There are no telegraph millionaires. There is no manipulation of market reports. There is no gambling in telegraph stocks. The various Governments display a progressive spirit, adopt new inventions, and lower the rates from time to time as fast as it seems to be practicable. As a rule there is a margin of profit in spite of low rates, and the sum total of yearly results in Europe generally shows a surplus of receipts above the cost of operation in spite of the low rates and extended lines. At the least calculation the people of Europe save $25,000,000 a year through Government ownership of the telegraph; i. e., judging by the experience of England and the United States, the telegraphing done in Europe would cost her at least $25,000,000 more with a private system than it costs under public ownership—$25,000,000 saved that would have gone to private corporations for the manufacture of millionaires and the further disturbance of the proper equilibrium of wealth diffusion.

Such are some of the conclusions abundantly sustained by the authorities above referred to. A few citations may be useful. After studying the public telegraph systems of France, Germany, Belgium, Switzerland, Great Britain, New Zealand, and other countries of Europe and Australia in 1890, Bronson Keeler says:

"So far as investigation has been made, the results show that throughout the world the government telegraphs are conducted efficiently, economically, and honestly. The users are everywhere satisfied with the service, and there is no country which would any more consider a proposal to sell its lines to a company than the people of the United States would entertain one to transfer the postal department to private enterprise." [2]

R. B. Lines, though very sparing of comment, says that the Swiss telegraph is "remarkably well managed and efficient." It is built with "wrought-iron posts and porcelain insulators," yet the "rates are low." [3] In Germany the wires are underground, and still the rates are low.[4]

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[1] A number of careful and comprehensive studies of European and Australian telegraph systems have been made. Frank Ives Scudamore examined them 30 years ago for the British Government (Eng. Repts. 1866-1868), the Washburn committee (H. Rept., 114(, Postmaster General Cresswell (1872), R. B. Lines (Tenth Census, vol. 4), Bronson C. Keeler (Forum, 1890, vol. 9, p. 450), and some others have furnished valuable data at various periods. Numerous discussions of more limited extent are to be found in the various cyclopedias and scattered through the congressional investigations and leading reviews. The governmental reports of Europe and Australia furnish certain data as to lines, messages, receipts, etc., and now and then a general discussion. The statistics published by the International Bureau at Berne are also of value. The files of electrical journals, English, French, German, and American, contain important information on the subject; and the observations of distinguished travelers in foreign lands may be referred to with great advantage. Counsel has availed himself of all these sources of information, but he is not going to deluge the honorable court with the details of his studies of the German, Belgian, French, and other systems. He hopes hereafter to state, with some fullness, the one most important case of the English telegraph, but contents himself here with a few general observations.

[2] Forum, Vol. IX, pp. 453-454.

[3] Tenth Census, Vol. IV, Postal Telegraph.

[4] Vrooman's Public Ownership, p. 74.

Sabine says that overhead wires are giving place to the underground system all over Europe. The overhead wires are unsightly, easily tampered with, and exposed to atmospheric influences that necessitate their continual repair. Scarcely a storm of any magnitude passes over the country that does not play havoc with the overhead wires. The Belgians have buried their wires in iron tubes with good effect; the English, the Germans, and the French have all made commendable progress in underground work.

Of the latter the historian says:

"The difficulties of the underground system (careless laying, decay of insulating materials, etc.) have been met, perhaps, more completely in France than elsewhere. The prejudice which the French have against wires crossing their streets in all sorts of dangerous spans and inelegant angles has necessitated the employment of the underground system in their towns.[1]

Prescott says:

"The construction of the English telegraph lines is uniformly excellent and reflects great credit upon the engineering staff in whose hands the work is placed. * * * The telegraphic system of Germany comprises some of the most thoroughly built and well-designed examples of line construction to be found in Europe. * * * The Swiss use iron poles grounded in blocks of stone. * * * The Bavarian administration has, within a few years, commenced replacing the wooden poles in use in that country by a very substantial and elegant system of iron poles."[2]

The Washburn committee says, "The telegraph system of France is exclusively under the control of the Government, and is perfect and complete in every respect."[3] The telegraph systems of Germany, Switzerland, Belgium, Great Britain, and other countries are also exclusively governmental; i. e., the Government has a monopoly of telegraphing for compensation. Private persons may build lines for their own use if they wish, but telegraphing for hire belongs to the Government. The federation of the telegraph with the post office in all these countries has been productive of great economy and convenience. In Germany the railways, telegraphs, telephones, and postal service are all cordinated, and many workers have blended duties in connection with two or more of these services.[4]

After speaking at considerable length of the governmental telegraphs of European countries, the Washburn committee says, "In all it has proved a perfect success and given entire satisfaction to the people."[5] In Belgium the Government permitted the establishment of a private line for the common carriage of telegrams in 1846, but bought it back in 1850.[6] In New Zealand, where the telegraph was originally in private hands, "its assumption by the Government and reduction to a uniform rate brought a large class of customers for the telegraph to whom it was before unknown, and the confidence in its management in Government hands led thousands to patronize it freely who seldom or never used it when in private hands."[7]

We have already noted in previous parts of this discussion the testimony of Prof. Ely and President Walker to the superiority of the telegraph service in Great Britain, France, and Germany. We have cited the facts that show the improved condition of telegraph employees under public ownership; and we have shown that the rates cut our tariff in two—a tabular statement of telegraph rates may be useful here.[8]

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[1] "Telegraph History and Progress," Sabine, p. 253.
[2] "Electricity and the Electric Telegraph," Prescott, pp. 307, 315, 319, 320.
[3] H. Rept. 114, p. 3.
[4] Ency. Brit., art, "Post office," and the various countries.
[5] H. Rept. 114, p. 5.
[6] Tenth Census, Vol. IV.
[7] Statement of William Gray of the Australian mail service. (H. Rept. 114, p. 6.)
[8] For these figures see 41st Report Eng. P. M. Gen., 1895; Appleton's Annual Cyclopedia, 1893, 1894, 1895; Tenth Census, Vol. IV, Postbuch zum Gebrauch fur das Publikum in Berlin; Rapport par le Ministre des Chemins de fer, Postes, Telegraphes, etc., de Belgique; Sullivan's Direct Legislation in Switzerland, p. 50; Wanamaker's Reports; the Western Union reports, etc. Counsel has not been able to obtain the German, Swiss, or Austrian telegraph receipts separate from the telephone, wherefore the blanks in the above table. In Belgium 8,320,000 dispatches were sent in 1894—2,920,000 of them were on public business, and 5,400,000 private, of which 2,085,000 were international, 2,731,000 inland, and 384,000 in transit—the receipts for the 5,400,000 paid messages were 3,548,000 francs, or about 13 cents per message—the receipts from the inland messages averaged a little less than 12 cents a message of an average length of 15 words. The cost of sending the entire 8,320,000 messages appears to have been about 3,500,000 francs, or 8½ cents each. I say appears, because the expenses are not entirely separable from the telephone account; but apportioning the blended expenses in proportion to the volume of business in each department gives the result stated.

TABLE IX.

	Ordinary rate per word, in cents.	Ordinary minimum charge per message, in cents.	Average receipt per message, in cents.
Great Britain	1	12	15½
France	1	10	15½
Germany	1¼	12	.....
Belgium	¾	10	8½
Switzerland	½	12	.....
Austria	1	11	.....
United States	2-7	25	31

We are paying double rates. England gets 71,589,000 telegrams for less than 15½ cents each. France gets 45,300,000 telegrams for less than 15½ cents each. Belgium gets 8,320,000 messages at 8½ cents each.[1] And the United States is said to get about 68,000,000 messages at 31 cents apiece.[2]

The Western Union looks up at the ceiling and says that Europe loses money on her telegraph business. On the contrary, every country named in the table reports a profit on its telegraph business, although the precise amount of it can not be stated, because the telegraph and telephone accounts run together on certain items and are not stated separately in the reports. In Switzerland the profits of the telegraph and telephone system in 1894 amounted to 694,000 francs; in Belgium the profit was 467,000 francs after carrying nearly 3,000,000 official telegrams free,[3] etc.—the case of Belgium, explained in the note, will show how the accounts of the two services are kept. The public telephone rates are as much below private rates as in the case of the telegraph, so that the profit reported on the combined business of telegraph and telephone tells the story of economy in public ownership just as well as if we could separate the accounts.

The Western Union twists uneasily in the box and remarks that wages are low in Europe—yes, and they are lower here, i. e., telegraph wages—wages in general are lower there. Compare a private enterprise here with a private enterprise there, and the advantage is generally with us, bad as we are, and the same is true when we compare a Government pay roll here with a public pay roll there; but when we compare a private enterprise here with a Government enterprise there the story has a tendency to run the other way.[4] Western Union scratches its ear and says it is distance—the distances are greater here. We have seen in Chapter II that this excuse is no better than the other—the whole expense due to excess of distance in this country is not more than 1 or 2 cents a message,[5]—differences of distance, etc., do affect cost, but

[1] A reference to the preceding note will show why the average receipt per message in Belgium is below the ordinary minimum charge. Nearly one-third of the total business is public matter, free of charge, which brings the 12 or 13 cents for each paid message down to 8½ cents for each message in the whole business done—it is all done for the people of Belgium, and they pay an average of 8½ cents for each message, private and public. We in America have to pay an average of 31 cents for each message, private and public. In England, by the Forty-first Rept., 1894-5, the free messages number 1,320,700. The press messages number 5,401,783, of an average length of 120 words, at a charge of 9 cents per 100 words, or 11 cents a message. Aside from the press there were 66,188,000 messages, averaging about 15 words, at an average cost of 15.6 cents per message. Foreign correspondence, 5,937,715, at an average of 24 cents. Inland ordinary paid messages, 58,907,408, at an average of 15.4 cents each. Total traffic, paid and free, 71,589,000 messages, of an average length of 22 words, at an average charge of 15.5 cents per message. In France the official telegrams number 5,000,000, or one-ninth of the whole; the average receipt per paid message is about 17 cents, and the average receipt per message on the whole business is 15½ cents; the cost per message to the people is less than this, for France makes a good profit on her telegraph business. The Western Union does some business which it calls free for railroads, etc.—these ought not to be included in estimating the average receipt, because they are paid for by the railroads, etc., in transportation, etc. If they were included in the number of messages forming the divisor, and the dividend was formed from the cash receipts for messages without adding the value of the services rendered by said railroads, etc., the quotient obtained was below the truth, and the people of the United States really pay more than 31 cents per telegram.

[2] For 1899 Great Britain reports 87,043,652 messages and the average receipts were 14¾ cents. In the United States the telegrams are estimated at 78,000,000 and the average toll about 31 cents.

[3] In 1897 the receipts of the Belgian telegraph and telephone were 7,141,088 francs, and the expenses 6,068,317, leaving a profit of 1,072,771 francs after carrying 3,413,000 free telegrams in the service of the State. The average receipt per telegram was about 8½ cents for each of the 9,200,000 public and private messages. In 1898 the profits were 1,659,000 francs.

[4] For the details see Ch. II. In Ch. XII we shall see how beautifully the Blair committee cornered President Green when he pleaded this wage defense.

[5] See Ch. II, note 2. The method there followed was to take the amounts reported by the Western Union at various times for maintenance and divide it by the number of messages; this would give the distance cost per message, and half of it would be the cost per message due to excess of distance in this country on the supposition implied in Western Union arguments that double rates are caused by double distances.

their influence accounts for only a very small fraction of the difference between our telegraph rates and those of Europe.

There is another way of testing these matters. If it is not private ownership, but distance and wages, that make our rates double what they are in Europe, then our postal service ought to cost us double the European cost—more than double, for the contrast of wages and distance is greater in the case of the post office, since postal wages here are higher than Western Union wages, and the post goes into all the out districts where the Western Union will not go. And again, if the main cause of our high rates is not private monopoly, as we claim, but distance and wages, as the Western Union claims, then private enterprise and public enterprise side by side in the same business in Europe should make substantially identical rates. The question of distances and wages being eliminated in such case, therefore the cause of difference in price, according to Western Union philosophy, is also eliminated.

Now, it happens that some of the telephones in Europe are public and some are private, so we can apply the test without going outside the business of communicating intelligence. Here is a table of telephone charges.[1]

We have seen that the Western Union reports 790,000 miles of wire and 58,632,000 messages for 1894. The same report gives $2,024,000 for maintenance and reconstruction, or about $2.50 per mile of wire, supposing the whole amount to be distance cost. It is evidence that the wire leased out to private persons amounts to about 50,000 miles. This leaves 740,000 miles to be maintained for the 58,632,000 messages, indicating a distance cost per message of a little more than 3 cents, so that the cost due to excess of distance, as above explained, would be about 1½ cents on Western Union data.

The distance cost per message is not determined by the size of the country, but by the length of line and wire per message and the cost of maintaining the said length. A very small country may have a large distance cost if the messages per mile of wire are few; and a very large country may have a small distance cost if the messages per mile are many. An extension of the wires into rural districts tends to make the distance cost high even in a small country, and a confinement of the wires to lines between the cities and larger towns tends to make the distance cost small even in a very large country. France reports 197,000 miles of wire to 45,328,000 messages, or about 250,600 miles for 58,632,000 messages. Taking this from 740,000 miles leaves 490,000 miles excess at $2.50 a mile, $1,225,000 excess of cost on our 58,632,000 messages, or about 2 cents a message as compared with France. Germany reports 288,000 miles of wire and 33,000,000 messages; given by proportion a little over 500,000 miles for 58,632,000 messages, or 240,000 miles excess, or a trifle over 1 cent a message due to excess of distance per message over the German system.

We saw in Ch. III, however that there is reason to believe 400,000 miles of wire is all the Western Union really needs for its message service. This, with the leased wire, divided into 2,000,000 maintenance and reconstruction expenditure reported by the Western Union, would make the maintenance cost per mile about $4.50, which agrees more nearly with the figures given by electrical experts (P. B. Delany says it is estimated that the cost of maintaining lines in this country is $4 per mile of wire), an agreement which tends to confirm the former conclusion as to the amount of wire actually in use by the Western Union. If that conclusion was correct, there are a few more messages per mile here than in Germany, and the excess of cost due to distance is a minus quantity; while in comparison with France our excess cost due to distance would be but a little more than 1 cent per message. So that, either way, on the probable truth, or taking the Western Union's own figures, the difference due to distance is not over 2 cents a message.

[1] Trondhjem, the third city of Norway (30,000 population), is the banner city in the growing movement for municipal ownership of the local telephone system. The original exchange was a private one established in 1882. The rates were low, but the service was unsatisfactory, so that in 1889 the town bought the property and reconstructed it in the most thorough manner. The town rates are:

	Per year.
For a business place within 1½ km. (about 1 mile) of central station	$16.65
For a second business connection by the same person or firm	13.31
For a private house (same distance)	8.33
For each 100 meters beyond 1½ km	1.37

The town builds all lines, supplies the instruments, and maintains the system, the above charges being the only ones subscribers have to pay. There are 780 exchange lines and 8 private lines. The average rental received for an exchange line is 49.1 kr., or $13.25 per year. The subscribers speak to surrounding towns (there are 11 of them) within 50 miles at the rate of 4 cents for 5 minutes. The nonsubscribing public pays 6½ cents per conversation interurban and 2½ cents for a local conversation. Each subscriber makes an average of 8 or 9 calls a day, so that the cost of a local conversation to a subscriber is about one-half a cent. The Trondhjem telephone receipts afford a surplus after covering all working expenses, interest on the capital invested, a reserve of 5 per cent a year on the capital, and insurance of employees against death, accident, and sickness.

In Luxemburg a local station pays $20 a year for connection with the state system, and the individual subscription is $16, which entitles the subscriber to talk all over the dutchy, 44 by 30 miles. No other charge is made upon one within 1½ km. of a wire, which is almost always the case, so thick are the wires; for one outside the limit the only additional cost is an initial construction fee of $20 for each kilometer.

The New Zealand rate in the table is an average found by dividing the total income of the public phones by the number of subscribers as given on p. 128 of the "New Zealand Official Year Book," 1894. As a number of subscribers probably have more than one phone, the actual yearly rate per telephone is probably under $20. The receipts more than cover operating expenses and depreciation.

In an investigation in New York the sworn testimony of the officers of the Metropolitan Telephone Co. showed that the net profit of that company was 474 per cent in six years on the cash capital invested—116 per cent in the year 1885, over 147 per cent in 1886, more than 145 per cent in 1887—pretty good net profits. While the rate was $60, then raised to $150, and again to $180, the company realized $2,843,454 in six years on an original cash investment of $600,000. In 1895 there were in New York 9,500 subscribers paying an average of $175 a year. Half the number pay the standard rate, $240; 3,000 pay a rate based on the service rendered; and 2,000 pay rates below $240 and down to $150. (Electrical World, Mar. 9, 1895, p. 309.)

High as the rates are in America, the subscriber has to put up with a far less valuable service than the European subscriber enjoys. There is no such coordination of the telegraph and telephone service here as exists across the sea.

In Germany a message can be sent to the telegraph through the telephone from any house or property having an instrument at a cost of 2½ cents a message, or one-fourth cent a word, or 5 cents for 10 words, 7½ cents for 20 words, and so on; this charge covers the receipt of the message at the central telephone office

TABLE X.—*Telephone subscription rates.*

	Ownership.	Yearly rental per telephone in pounds.	Yearly rental in dollars.
Germany	Public	7 -1	36 - 5
Belgium	do	6 -3	30 -15
Switzerland	do	7 -1½	35 - 8
Holland	Private	20 -3	100 -13
Spain	do	12 -3	60 -15
Trondhjem (Norway)	Public	3½-1½	16⅔- 8
Sweden	do	4 -1¼	20 - 6
Do	Private	13	69
Austria-Hungary	Public	4½-2½	21 -12
Bulgaria	do	6	30
Luxemburg	do	3¼	16
England	Private	20 -9	100 -45
Do	Public	7	[1] 30
New Zealand	do	5	[2] 24
United States (Bell companies)	Private	45 -7	240 -36
United States (Interior Department)	Public	2	10

[1] Average (see note). [2] Average receipts per subscriber.

The Bell prices in America run above and below the national prices in Great Britain. The average income per phone is probably not very different in the two countries, being estimated at $50 to $60, tolls and all.

Run your eye down the pound column—it takes two figures every time for a private company's standard price. Pick out all the high charges and put them together and you'll have all the private systems in the group—pick out the low rates and you'll have all the public systems in your group. Is it distance? Switzerland is larger than Holland and the country is vastly rougher and more difficult to traverse, yet the average rate in Switzerland is only a third of the average Holland rate. Austria-Hungary is very much larger than Spain, and more than twice the size of Great Britain, and yet the rate in Austria is about one-third of the Spanish charge, and

and its transfer to the telegraph. Telegraph messages are sent to destination over the telephone at the same rates.

The Swiss telephone stations act in unison with the telegraph, and in Belgium also telegrams are received and transmitted by telephone, the two systems being thoroughly coordinate. In Europe, as a rule, the telephone subscriber has the privilege of transmitting and receiving telegrams over the telephone wires free of charge. In the United States you pay a good deal more for your telephone and get a good deal less out of it.

The history of the telephone in Amsterdam is very instructive. In 1880 the city gave a 15-year franchise to the Netherlands Bell Co. in consideration of receiving 21½ per cent of the company's gross receipts. The year preceding the close of the franchise term (1894) the city's revenue under the agreement amounted to $17,000, but the extension and improvement of the system had been so slow that that city decided upon public ownership and operation, and took the plant in November, 1896. It immediately buried the cables, introduced a better equipment, and greatly extended the plant. It reduced the rate for unlimited service from $47 to $36, and kept its exchange open all night, instead of closing at 10 o'clock. For employees it shortened the hours of labor to seven, increased wages about one-fourth, and established half pay during periods of prolonged sickness. The number of subscribers increased considerably, and the profits to the city are much larger than the private company ever paid in. The receipts in 1898 were $96,000, and expenses, including interest and sinking-fund payments, were only $57,000. Amsterdam is a city of 500,000 people, and yet its municipal telephone accounts indicate that the rate could safely be reduced to $24 and perhaps to $20, even with buried wires and considerate treatment of labor.

Public ownership of the telephone is an accomplished fact in one of the departments of the Federal Government. The Department of the Interior kindly furnished me with the following facts: In 1894 the department paid the Bell Co. $60 to $125 each for 65 telephones, the total rental being $4,283. The department employed a lady to attend the main exchange at $600 a year, making a total cost of $4,883, or an average of more than $75 per phone per year. In July, 1895, the department put in a system of its own—140 telephones connecting widely scattered buildings in Washington, with four switchboards, the main exchange being in the Patent Building and attended by the same lady who had charge of the Bell phones. In addition to her salary of $600 the department pays an electrician $300 a year to keep the system in repair, making a total operating cost of $900 a year, or $6.43 per phone. At 3 per cent interest and 5 per cent depreciation the department estimates the fixed charges at $3.80 per phone year, which gives a total cost of $10.25 for what used to cost $75 a year under the Bell régime. The three subordinate switchboards are tended by persons already employed by the Government before the telephones were put in, and involve no additional wage cost. The instruments cost about $20 a set, and are of very fine make. (A very good telephone can be had for $10, battery and all complete.) The facts in regard to these Government phones and the Trondhjem system ought to be printed by every newspaper in the country, so that the people everywhere may be led to think a few practical thoughts about the telephone.

The cost of construction of the ordinary exchange telephone line is $60 to $75. The cost of operation in a 50-mile radius with a moderate population appears to be $10 to $15. The operating cost in Trondhjem is under $8—interest (4½ per cent) and depreciation (5 per cent) amount to $4.37; total cost about 12.33 per telephone year. Cooperative societies in this country and in Europe have successfully carried on the telephone service for some time at a $10 rate. (See City for the People, pp. 117, 119; Municipal Monopolies, ch. 4, a discussion of the telephone by the present writer.)

about one-quarter of the English private rate. The size of the country does not seem to be the determining fact—it would be hard to see how it should have much influence on local telephone charges at any rate, and yet the contrast of high and low charges confronts us here as in the case of the telegraph. Is it wages? Wages are higher in Switzerland than in Holland, and in Austria they range one-fourth more than in Spain (Mulhall's Dictionary of Statistics). According to the New Zealand Year Books, wages are higher there than in the United States, yet the people obtain their telephone service for one-third to one-twelfth of the Bell telephone rates. And the distances between subscribers are greater than here. The tendency of public enterprise to make reasonable rates based on the cost of the service, and the tendency of private monopoly to use its arbitrary power of writing tariffs and levying taxes to realize the largest obtainable profit regardless of the value of its service, constitute the only possible explanation of the phenomenal contrasts in telegraph and telephone rates above set forth. Further evidence is afforded (1) by the fact that in spite of their low rates the public telephones of Germany, France, Belgium, Sweden, Switzerland, Luxemburg, Austria, and New Zealand yield a profit above all operating expenses, maintenance, and depreciation; (2) by the fact that two-thirds of the Bell Telephone Co.'s receipts are clear profits according to the company's own statements; and (3) by various facts showing the low cost of operating the telephone service—public telephones being operated at a cost estimated in some cases as low as $10 a year; and even private companies celebrating the expiration of the Bell patents by organizing telephone exchanges at the rate of $1 to $2 a month for each subscriber—in some cases even less. Public enterprise brings rates down to the cost of production, or if the rates are above cost, it amounts to the same thing to the public, because the profits belong to the public. Private enterprise in a free field of competition brings rates within sight of the cost of production—cost plus a moderate profit. But private monopoly does not care to keep the cost of production in view—it soars aloft and floats its tariff (except when restrained by law) at a height proportioned to what the boys would call the "gall" of the managers. The strength of the monopoly, its freedom from restrictions, and the amount of "gall" possessed by its management are variable quantities, wherefore private monopoly makes very different charges at different times and places for substantially the same service under substantially similar conditions of productive cost.[1]

Do you wish more proof? Let us recur to the proposition that if the responsibility for our lofty telegraph rates does not rest upon private monopoly, but upon distances, wages, and other elements of difference between this country and Europe, then the postal service (which is subject to the said elements of difference, but eliminates the factor of private ownership, being public on both sides of the water) should be more than twice as costly here as in Europe. Well, here are tables of postal charges and expenses made up from the official returns of the various countries represented:

[1] It is to be remembered that the telephone rate in a large city must be higher than in a town of moderate size, and that it is not fair to use such cases as Trondhjem in comparison with the larger cities of England and America. The complexity of the service is far greater in a city of 1,000,000 people than in a place of 15,000 or 50,000. If there are 20,000 subscribers in the same locality each may call for communication with any one of 19,999 stations; whereas, if there are but 100 subscribers, 99 connections for each is the limit of the service that must be provided for. On the other hand, if the rates are reasonable, the number of subscribers in a given area is apt to be vastly greater in a big city than in a country town, and this tends to reduce the cost per phone. Whatever the result of these opposing tendencies may prove to be when low rates shall be established in an American city alive to the value of telephone service, we are at no loss in the mean time for reliable comparisons. Berlin and Vienna are very large cities—the first as large as Chicago, the second as large as Philadelphia—yet the telephone rates in these cities of ours are three to fourteen times as high as in their European counterparts—$21 a year in Vienna, in Philadelphia $90 to $250.

TABLE XI.—*Postal charges.*

	Letters.	Postals.	Newspapers and periodicals.	Books and other printed matter.	Merchandise.
United States	2 cents 1 ounce.[1]	1 cent	1 cent 1 pound to 1 cent 4 ounces.[1]	1 cent 2 ounces	1 cent per ounce.
Germany	2½ cents ½ ounce.	1½ cent		¾ cent 1⅔ ounces; 2½ cents ½ pound; 5 cents 1 pound; 7½ cents 1 to 2 pounds.	Samples of goods, 2 to 4 cents ½ pound. Parcels, 6 cents 11 pounds, 11 miles; 12½ cents 10 pounds, any distance.
France	3 cents ½ ounce.	2 cents		½ cent for each ½ ounce; 1 cent ⅔ to 1⅔ pounds; 1 cent for each 1⅔ pounds thereafter.	Parcels not over 7 pounds, 4 cents.
Great Britain	2 cents 1 ounce.	1 cent	1 cent each	1 cent 2 ounces	Samples, 2 cents 4 ounces; 3 cents 6 ounces; 4 cents 8 ounces. Parcels, 6 cents 1 pound; and 3 cents more for each further pound up to 11.
Switzerland	2 cents ½ pound.[1]	1 cent		⅔ cent 1 ounce, 1 cent ½ pound.	Samples of goods 1 cent ½ pound.
New South Wales	4 cents ½ ounce.[1]	2 cents	1 cent 10 ounces.[1]	1 cent 2 ounces	
New Zealand	4 cents ½ ounce.[1]	3 cents		1 cent 2 ounces	Parcels 12 cents pound, and 6 cents for each added pound up to 11, the limit.

[1] In the United States local letters, except in free-delivery cities, 1 cent an ounce; in Switzerland, ½-ounce letters, within 6 miles, 1 cent; in New South Wales and New Zealand, ½-ounce local letters, 2 cents. In the United States newspapers are carried "county free" to the number of 380,000,000 annually, and publishers of periodicals have a rate of 1 cent a pound, the rate to others mailing periodicals being 1 cent for 4 ounces. New South Wales carries all newspapers not exceeding 10 ounces free, within seven days after publication. Where no special newspaper rates are made, the rate for printed matter governs. The figures in this table are taken from official sources, dated 1894 or 1895, except in the case of the French and Swiss rates, the authorities for which date 1891. The only Belgian report I have relates to the telegraph and telephone, and the statements in American and English publications do not give sufficient data for the comparisons of this and the following table; the letter rate is 2 cents, and postcards 1 cent.

This does not look like the telegraph table, does it? The United States is just as much bigger than England, France, Germany, or New Zealand, when it comes to carrying letters, as when the sending of telegrams has the floor, but her size does not seem to double up her postal tariff, as it ought to according to Western Union logic—on the contrary, her postal charges are lower than those of Europe; and Postmaster General Wanamaker says they are the lowest in the world. But the postal cost may be higher than in Europe, although our charges are lower. Let us see. We will take the total number of pieces carried in the mails as a divisor, and the total expense of the mails as a dividend, and ascertain the cost per piece in the United States and in Europe.

TABLE XII.—*Postal receipts and expenses per unit.*[1]

	Area in thousands of square miles.	Population in millions.	Average receipts per piece of mail handled, in cents.	Average expenditure per piece, in cents.
United States	3,512	70.00	1.48	1.65
Germany	208	51.80	2.50	2.30
France	204	38.50	1.94	1.55
Great Britain	121	38.86	1.85	1.35
Switzerland	16	3.00	3.42	3.24
Holland	12	4.80	1.48	1.18
Austria	116	24.50	2.83	2.05
Hungary	125	18.15	3.61	2.86
New South Wales	309	1.25	2.05	2.40
New Zealand	104	.71	2.67	1.65
Average for the best countries of Europe	.....	.....	2.45	2.05
United States, as above	.....	.....	1.48	1.65

[1] The cost per unit does not vary much from year to year. In 1885 the United States mails carried 2,633,115,950 pieces, at a cost of 1.9 cents per piece; in 1888, 3,576,100,000 pieces at 1.65 cents apiece; in 1890, 4,005,408,000 pieces at 1.65 cents each; in 1891, 4,351,844,800 pieces at 1.65 cents each; and in 1892, 4,838,400,000 at 1.57 cents each; since 1892 the cost has gone back to about 1.7, owing to circumstances resulting from the depression of business (see Postmaster General's reports, 1888, 1890, p. 51; 1891, p. 53; and subsequent reports); the average for recent years is about 1.65 cents per piece. The actual amount of postage received per piece is about 1.39 cents (1890 Rept., p. 51-2), but for lack of separate statement of the items the total mail expenses have to be used in calculating the cost per piece, and therefore the total mail receipts were used instead of the postage receipts.

The main cause of difference in the unit postal cost appears to be a variation in the proportion which the traffic between large cities bears to the total traffic of the country. If the rural population makes small use of the mail and the cities patronize the postoffice largely, the cost per unit will be small; but if the country people read and write a great deal the postal cost per unit will be large. The cost per unit of the postal traffic between Philadelphia and New York is very small; but if the same volume of mail had to be distributed to the same number of people widely scattered in hamlets and farms the cost would be very large. The density of business at terminal points has much more to do with the unit cost than the size of the country or the distance between the terminals. This is the reason the cost is high in Switzerland, where every village and farm is a frequent patron of the post, and no great cities pour in a giant mass of traffic to reduce the average cost. In Holland (and probably in Belgium) the conditions are reversed, and the cost is low.

This table of a service which is public on both sides of the water does not look much like the telegraph and telephone tables. The United States is seventeen times as large as Germany, yet the postal cost per unit is lower here than there—look back a moment at the telegraph table and note the contrast. Our Republic is thirty-three times the size of New Zealand, but the postal cost per unit is about the same in the two countries—glance back at the telephone table and note how our Bell telephone tariff towers above the New Zealand rates. This country is two hundere and nineteen times as big as Switzerland, yet the unit of cost of her mail service is considerably above ours, while her telegraph rates are less than half of ours. Holland has lower rates than other European countries, when the service is public in all, but her private telephone rates reach a much higher maximum than the public rates of her sister States.

Taking the whole of Europe together, the eminent statistician, M. G. Mulhall, finds the average telegraph rates to be about half of ours, and the average unit cost of the mail service about double what it is here,[1] which suggests the inference that when a service is public here as well as in Europe we can run it at half the average European cost, if we try; but when the service is public there and private here, it costs us twice as much as our friends across the water have to pay. If the rule should hold in the case of the telegraph and telephone, public ownership would give us rates about one-quarter the size of those in fashion at present—the telegraph tariff would "slump" like the ladies' sleeves when the dealers have sold the dear world a full stock of balloons. Even if we suppose that public ownership here would do no more than reduce our telegraph and telephone rates to the European level, it would save our people more than half what they now pay for wire service. The gross receipts of the telegraph and telephone in the United States amount to about sixty millions a year. A postal teleplant would save the people the profits that admittedly go to the telegraph and telephone monopolies, plus the profits that are not stated as such, plus the savings effected by the coordination of the telegraph and telephone with each other and with the post office, and by abolishing the wastes and big salaries of the corporations—comparisons with other countries and estimates of actual cost here

[1] Mulhall's Dictionary of Statistics, p. 458—the most famous compilation of statistics in the world, and everywhere recognized as high authority.

combined to show that it is a mild proposition to affirm that the people could save more than half the money they pay to these monopolies.

The expenditure by the nation of two or three hundred thousand dollars at the proper times for patents, and thirty-five millions in telegraph and long phone construction, and the further expenditure of sixty or seventy millions by cities and towns for municipal telephone systems,[1] would have made the people the owners of a better system of wire communication than that now owned by the telemonopolies under a capitalization of half a billion—a system that would save them at least 30 millions of tolls a year on present business, and several hundred millions probably in the next ten years.

The fine record of the public telegraph in Europe as compared with the private system in England prior to 1870, was a chief cause of England's determination to adopt the postal system. The English Government went to work in a very scientific way to ascertain which plan was the best. It appointed Frank Ives Scudamore, one of the secretaries of the British post office, and a man of high character and fine abilities, to examine into the workings of the German, French, Belgian, and other public systems, and compare them with the results of private ownership in England. He carried out his commission in a very able and impartial manner. His reports (1866, 1868), together with the coroborative evidence introduced to the telegraph committee of the Commons, constituted an overwhelming demonstration of the superiority of the governmental plan, and became one of the main causes of the passage of the English bill for the public ownership of the telegraph, which became law in 1868. It is worth our while to see how England made the change, and whether she is better off than she was before.

Chapter X.—The English Telegraph.

ENGLAND TRIED PRIVATE COMPANIES FOR A QUARTER OF A CENTURY—FOUND THE SYSTEM VERY IMPERFECT—HIGH CHARGES—MANY COMPLAINTS—STRONG SENTIMENT FOR PUBLIC OWNERSHIP—EXAMINED GOVERNMENT TELEGRAPHS IN EUROPE AND FOUND THEM CHEAPER AND BETTER—BOUGHT OUT THE COMPANIES AND MADE THE TELEGRAPH PART OF THE POSTAL SYSTEM (1870)—RESULT, A GREAT SUCCESS, LARGE REDUCTION OF RATES, INCREASE OF BUSINESS, SUPERIOR EFFICIENCY, BETTER TREATMENT OF EMPLOYEES—PRACTICALLY UNIVERSAL SATISFACTION—THIRTY YEARS OF EXPERIENCE HAVE DEMONSTRATED THE SUPERIORITY OF PUBLIC OWNERSHIP AND OPERATION.

Section 5: The experience of England constitutes a most powerful argument for public ownership of the telegraph. Up to 1870 the telegraph business in Great Britain was in the hands of private companies, and for many years complaints had been made of excessive charges, poor service, and inadequate facilities.[2] The companies pretended to compete, but in reality had an understanding among themselves which prevented the reduction of rates to a just figure. They were satisfied to keep the tariff up and allow each company to obtain such share of the business as its territory and facilities commanded. And when in 1861 the United Kingdom Co. was established for the purpose of reducing the rate to 1s. irrespective of distance, it encountered such formidable opposition from the combination among the old companies that it was forced to abandon its attempt and swing into line.[3]

In 1869 the tariff charged by the United Kingdom Co. as well as by the older Electric, International, British, and Irish Magnetic Companies, was: 1s. (24 cents) for 20 words up to 100 miles; 1s. 6d. (36 cents) for 20 words up to 200 miles; 2s. (48 cents) for 20 words beyond 200 miles; 3s. to 6s. for messages to Ireland.

In many instances these rates, high as they were, did not cover the whole transmission of a telegram. They only applied to the wires of a single company, and when a message had to be transmitted over the systems of two or more companies an additional charge, frequently of considerable amount, was levied.[4]

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[1] There are supposed to be 750,000 telephone subscribers in the United States now (1899) and the system may be worth 60 or 70 millions. The Bell system claims 500,000 subscribers and a value of $225,000,000. But as the value of a telephone runs from $10 to $20, and the cost of the lines averages about $70, it is clear that the company's valuation is much too high.

[2] The first line was built, according to some authorities, in 1839, according to others in 1843, and still others say 1846. By 1854 there were numerous complaints of error, extortion, and inadequacy, and Thomas Allan set the people to thinking about the advisability of public ownership. Similar complaints and proposals were made at short intervals until the Edinburgh Chamber of Commerce took the matter up in 1865 and started an agitation which with the aid of Mr. Scudamore's knowledge and Mr. Gladstone's political strength secured the needful legislation in 1868–69.

[3] Papers on Electric Telegraph, Eng. 1868, pp. 53, 55, 202. Ency. Brit., P. O., subhead Postal Telegraphs.

[4] Quoted from the Forty-first Report of the English Postmaster General Arnold Morley, 1895, p. 33, arranging the rates in tabular form for readier comparison. Besides the companies mentioned there were the London and Provincial, the Universal Private, and a few other small companies. There was nominally a "local" rate of 6d. in London and some other large towns, but its scope was so restricted that it only applied to about 2 per cent of the total number of telegrams. And even within the narrow area in which the 6d. rate

These rates were scandalously high, and yet our own people at the time in question (1869) were frequently compelled to pay from five to six times as much for the same distance and the same number of words.[1]

In 1865 the Edinburgh Chamber of Commerce called the attention of Lord Stanley, the Postmaster General, to the telegraph question, showing that the rates were unreasonably high, the transmission unsatisfactory because of delays and inaccuracies, the treatment of the press unfair, and many towns and districts wholly unprovided for. The Edinburgh committee gave careful consideration to three different remedial measures: (1) A regulated amalgamation of existing companies; (2) the establishment of entire free trade in public telegraphy; (3) the transfer of the service to the post office. Its conclusion was in favor of the last, but it agreed to recommend the appointment of a royal commission of inquiry prior to legislation.

Lord Stanley appointed Frank Ives Scudamore to "inquire whether the telegraph might be beneficially worked by the post office." Mr. Scudamore was a man of high character and of fine ability. He made a scientific study of the abuses of the existing service in England, the condition of the service in other countries, the benefits likely to result from a postal system, and the difficulties and disadvantages that might attach to it. The result was that he came to believe in the postal telegraph, and in 1866 made his report, a very able paper, conclusively showing the advantages of the proposed plan. In 1868 he made a supplementary report to Lord Stanley's successor, the Earl of Montrose, who transmitted it to the House of Lords with a communication of which the following is a part:

"In the inclosed report and that which preceded it frequent reference is made to the manner in which the telegraph systems of Belgium and Switzerland have been framed and maintained by the post offices of those countries. The example of the colony of Victoria might, however, have been cited with equal propriety, for in that colony the telegraph has long been worked by the post office, and with such success that although the charges for transmission are high, the proportion of telegrams to letters is as high as in Belgium. There is indeed nothing new in the proposed scheme. Of its various parts each has been tried, and tried with success, either in Belgium, in Switzerland, in France, or in a British colony; and taking into account the greater wealth and commercial activity of the United Kingdom, I see no reason to doubt that the scheme, as a whole, will be equally successful here.

"Your lordships will readily perceive that such a system, besides facilitating social intercourse, strengthening and multiplying the relations between the inhabitants of different districts, and stimulating the growth of trade and commerce, will also strengthen the country from hostility from without, and aid in the maintaining of law and order within the kingdom."

The chancellor of the exchequer, in moving for leave to introduce the bill, said:

"It would be admitted as a general principle that the monopoly that had succeeded so well in regard to the conveyance of letters might be expected to succeed equally as well in a more rapid method of communication. I am not aware of any objection to monopoly in one case that would not hold good in the other. This country is behind others in the matter of telegraphic communication. The proportion of telegrams to letters is far less in this country than in Belgium or Switzerland. In 1866 the proportions were in Belgium 1 to 37; in Switzerland, 1 to 69; in Great Britain, 1 to 121.[2]

"These figures show that we are suffering from high rates for telegraphic communication and inadequate facilities. If we were equally favored in the matter of charges, etc., the probability is that the proportion of telegrams would be largely increased. Our present system does not give satisfaction to the commercial world. A deputation from the Associated Chambers of Commerce waited upon the Postmaster General and myself at the treasury to present a memorial on this subject. They complained of high rates, vexatious delays, inaccurate rendering of messages, and the absence of telegraphic communication in whole districts. Under the present system of private

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applied it was illusory, as was shown by Mr. Scudamore in his testimony before the select committee. Experiments were made in the few large towns where the 6d. rate was supposed to exist, a number of telegrams being sent from the post office to various parts of the town. In Birmingham ten messages were sent to different points in the town and in five cases the charge, including porterage, was 1s. 6d., in two cases 1s., and in three cases when the charge was 6d. it was discovered that the wires were not used at all, the message being carried by hand all the way. In Liverpool nine trial messages were sent; in four cases the charge was 2s. and the average time 1½ hours; on the whole nine trials the average cost was 1s. 4d. per message. In London a number of trials were made, and in no case was the charge less than 1s., and in some cases it was 2s. In one of the experiments the post-office messenger tried a race with the message. After depositing it in the telegraph office he went to the place of destination by railway (with return-trip ticket costing him 1s.) and arrived 20 minutes before the telegram. (Rept. of Spec. Com. on Telegraphs, Eng. Reports from Committees, vol. ii, 1867–68, p. 6.)

[1] H. Rept. 114, p. 6, where a table of rates from Washington in 1869 shows that 50 cents would do as much on the English lines as $2.70 to $3 would do in many cases on our own lines.

[2] Now that Great Britain has a national telegraph the proportions are 1 to 23, 1 to 30, and 1 to 30 respectively.

administration there is little prospect of fair reduction in rates. The cost of working the telegraph system is greater than it would be in the hands of the State. If telegraphing were made the monopoly of the post office it would be able to work at much lower rates than the companies."

After speaking of the extortionate charges of the private companies in the paragraph already quoted, Postmaster General Morley continues thus:

"Not only were the charges high, but the systems were incomplete. It was in the nature of things that companies whose aim was to secure a profit for their shareholders should restrict their operation as far as possible to the principal towns. In the absence of an obligation to work the telegraphs as a national undertaking, they naturally refrained from extensions to the smaller towns and villages, or to districts remote from the chief centers of population, which could not be expected to yield a remunerative business. Thus several towns in England and Wales with from 3,000 to 6,000 inhabitants were without any telegraph facilities, being situated at distances of from 5 to 10 miles from the nearest telegraph station. Where such towns were provided with telegraphic communication the office was, as a rule, situated at the railway station, frequently at an inconvenient distance from the center of the town. The telegraphs were originally confined to the railways, and to a large extent this system prevailed up to the time of the transfer. It was only in the large towns that 'town offices' had been opened, and these offices were neither numerous nor suitably distributed."[1]

In the large towns the telegraph offices were not well distributed. The offices of three or four companies were apt to be clustered together in the business center of the city, sometimes only a few yards distant from each other, while the suburbs and outlying districts were almost wholly neglected. When the inquiry of 1865 was instituted, the total number of places supplied with telegraphic communication by all the companies together was about 1,000, while the number of places having postal communication at the same date was 10,685.

Postmaster General Morley says (p. 34):

"It was a natural result of these conditions that the use of the telegraph was confined to a comparatively small section of the population. The companies themselves stated that their wires were chiefly used by 'stock brokers, mining agents, ship brokers, colonial brokers, racing and betting men, fishmongers, fruit merchants, and others engaged in business of a speculative character or who deal in articles of a perishable nature.'"

The situation is thus graphically described by Mr. Scudamore:

"By maintaining high charges as long as they could, by reducing those charges inch by inch, as it were, and only under pressure, by the confinement of their operations to important towns, and by planting their offices mainly in the business centers of those towns, the telegraph companies had brought speculative men, and speculative men only, to a free use of the telegraph. Whoever could make money on a turn of the market, whoever could advantageously place a few pounds when 'Bumblebee' went below 'Dulcibella' in the betting, whoever had it at heart to let Thames Street know that there was a large take of herring at Wick rushed cheerfully to the telegraph office and would have submitted to any inconvenience and paid any charge to get his message through in time; but the general public, puzzled by a variable and complex tariff and disheartened by the distance of the telegraph offices from their doors, had got to regard the telegraph as a medium of communication which they might use in time of sore necessity, and then only, and to look upon a telegraph message with a feeling amounting to fear."

The parallel between the English telegraph before 1870 and our own system to-day is very striking. We have in an aggravated form all the evils the English reformers complained of and several additional ones of our own—boundless dilution of stock, enormous profits, telegraphic millionaires, monopoly of market reports, systematic ill treatment of employees, etc. England had abundant reason for revolt; America has still greater reason.

The press of Great Britain, as we have seen, demanded a Government telegraph and persisted in discussing the subject in spite of the threatened stoppage of their dispatches.

During the years 1865 to 1868 the agitation was taken up by mercantile associations all over the Kingdom, and finally the chambers of commerce of 30 prominent cities memorialized the House of Commons and sent a deputation to confer with the postmaster general. The memorial stated that the petitioners "had reason to complain of the high rates charged by existing companies for the transmission of messages, of frequent and vexatious delays in their delivery, of their inaccurate rendering, and of the fact that many important towns and even whole districts are unsupplied with the means of telegraphic communication."[2]

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[1] Forty-first Report English Postmaster General, p. 33.
[2] See account of the memorial in H. Rept. 114, pp. 6-8.

The House of Commons referred the memorial to a "select committee on the telegraph bill," and this committee made a very lengthy investigation of the whole subject. A great number of witnesses, both friendly and unfriendly to the proposed legislation, were called and examined, among them Mr. Scudamore, who most ably advocated a national telegraph system and successfully met all objections. He advocated the union of the telegraph and postal services, the reduction of rates, the extension of facilities to the whole population, the improvement of the service by keeping the offices open longer and making better arrangements for rapid transmission and delivery, the provision for an effective "free trade" in the collection of news for the press (of which collection the old telegraph companies had possessed a virtual monopoly), the severance of domestic and commercial telegraphy from the railway service, and provision for the transmission of money orders by telegraph.[1] He pointed to the amalgamation of the telegraph and the post office in Belgium, Switzerland, France, Victoria, New South Wales, etc.; the establishment of places of deposit for messages, in addition to the places of transmissi9n. as in Belgium; the use of telegraphic stamps in Belgium and France; the telegraphic money-order offices of Switzerland and Prussia; and called attention to the low rates, general use, great economy, efficient service, and universal satisfaction afforded by the Government telegraphs in the countries named. He disclaimed originality in respect to any portion of the plan he proposed, showing that every part of it was already in successful operation in other countries.[2]

Among the other witnesses who appeared before the select committee and testified in favor of a national telegraph were presidents of chambers of commerce, eminent inventors, professors, business men, and editors of leading papers. The testimony of the inventors, C. Wheatstone and Thomas Allan, and that of the famous Prof. W. S. Jevons are of special interest, and, together with the less technical parts of Mr. Scudamore's testimony, they would form a document of great power for the stirring of our people if the matter could be widely circulated.[3] One of the strongest points in Mr. Scudamore's evidence was the proof by letters from Belgium, Switzerland, Prussia, Denmark, and France that in all these public systems the telegraph was used very largely by the mercantile class in general and by the masses of the people for social and domestic purposes, such uses being 41 per cent in France, half in Switzerland, and 59 per cent in Belgium, the speculative use of the telegraph being very small as compared with the English situation, in illustration of which Mr. Scudamore quoted from the pamphlet issued by the Electric & International Telegraph Co., while it was opposing the postal telegraph: "The class who use the electric telegraph most freely are stockbrokers, mining agents, ship brokers, colonial brokers, racing and betting men, fruit merchants, and others engaged in business of a speculative character or who deal in articles of a perishable nature" * * * "even merchants generally use the telegraph comparatively little." The company thought it was making a great argument against a public telegraph—should the Nation go to the trouble of establishing a postal telegraph to supply speculators with a better and cheaper means of carrying on their gambling transactions? The company did not see that the reason the lines were used chiefly by speculators and did not benefit the mass of the people was simply that private ownership made rates so high and facilities so insufficient that the telegraph was not within the reach of the masses of the people, and that in reality its statement when placed by the side of the facts from other countries became a powerful argument for a public telegraph in order to rescue electric transmission from its dedication to speculative use and give it to the whole people.

A number of valuable documents were attached by Mr. Scudamore to his reports by way of appendixes, and were published by the Government. Among them were (1) "Reasons for annexing the Electric telegraph system to the general post office" (1854), by Thomas Allan, who was an electrical inventor and the founder of the United Kingdom Co. (2) Mr. Baine's plan for a postal telegraph (1866). (3) A "Memorandum on the expediency of putting the telegraph in the hands of the Government," by Ricardo, chairman of the Electric & International Telegraph Co. (a copy of this production had been sent to Mr. Gladstone for perusal in 1861). Besides all this, communications from Switzerland, Belgium, etc., were published, and many facts relating to the English service; but when it came to the appendix in which Mr. Scudamore had put the accounts of the English companies, we find the premises vacant and unoccupied, and a footnote explains that "it was thought right to omit these accounts." Same old story; the people must not know the facts about the companies. The companies would consider it very discourteous, a breach of good faith, indeed, to let the people behind the scenes, and they would make it very disagreeable for public officers

[1] See Scudamore's Supplementary Report, p. 142.
[2] Minutes of evidence taken by Commons committee.
[3] See Reports from Committees (English), vol. ii, 1867-8. Report of Select Committee on Telegraph.

who should tell too many tales out of school. It may be said that it was not sure at this time that the Government would purchase the lines, and a publication of the accounts would have revealed each company's affairs to its rivals. I believe that this is no answer. The public has a right to know the inside working of every quasi-public corporation every year, and all the time, entirely regardless of contemplated purchase, and it has a special right to full accounting when a purchase is being negotiated. It is only by full publicity that the public can hope to hold their officers in check and secure fair terms of purchase.

The post-office publications afforded rich material for the press, and the educational campaign was vigorous.

Charles Dickens, in his journal, All the Year Round, strongly advocated national purchase of the telegraph, described Mr. Scudamore's plans quite fully, and with scorching humor disclosed the absurdity of the objections urged against the reform.[1] The great novelist spoke of the question as "one of great national importance," and told of "the comparatively degraded position, telegraphically speaking, which the British public holds in regard to other European publics, and from which it will, should the proposal become law, be emancipated." Dickens made excellent points by calling attention to the fact that a message could be sent in Switzerland or Belgium for 10 cents which would cost 24 to 46 cents in England for the same distances.[2] And that the proposed change to Government ownership in England would result in a reduction of 33 per cent on messages going over 100 miles, 50 per cent on messages over 200 miles, and 70 per cent on messages between Great Britain and Ireland (besides bringing all lines under one management, whereby a further reduction of 50 per cent or more would be realized on messages over the lines of more than one company whether going less than 100 miles or more).

A glance at Mr. Scudamore's reports to the postmaster general may be interesting in this connection:

The reports were devoted largely to a review of the postal telegraph systems of Belgium and Switzerland, with the conclusion: "There can be no doubt that the facilities for the transmission of telegraphic correspondence in this country are inferior to those which are enjoyed by the people of Belgium and Switzerland." The figures showed at least 50 per ce t more offices and wires and a very much larger business in proportion to proportion and in reference to the letter post, etc., the rate far below those in force in Great Britain.

Ratio of inland telegrams to inland letters.

1860	1865	1866
Switzerland: 1 telegram to 84 letters.	1 telegram to 69 letters	1 telegram to 69 letters
Belgium: 1 telegram to 218 letters.	1 telegram to 73 letters	1 telegram to 37 letters.
Great Britain: 1 telegram to 296 letters.	1 telegram to 151 letters	1 telegram to 121 letters.

This comparison, Mr. Scudamore said, was far more favorable to England than the actual truth, the number of English messages being overstated since all messages were credited and were sent over the lines of more than one company and were, therefore, counted twice or three times and a considerable number were international, and not inland at all, while in Belgium and Switzerland only inland messages were counted in the comparison and no message was counted twice, the telegraph system being a unit in each of those countries.

Messages per mile of wire.

	United Kingdom.	Belgium.	Switzerland.
1862	47	97	128
1865	61	124	159
1866	78	181	163

[1] All the Year Round, Vol. XX, p. 37, June 20, 1868, and Vol. XXII, p. 324, Sept. 4, 1869.

[2] All the Year Round, Vol. XX, p. 39; Vol. XXII, p. 327; Report of Select Com., p. 125, Repts. of Committees (Eng.), Vol. II, 1867-8; see also p. 5; the rates in Denmark were 18 cents; Holland, 12 cents; Belgium and Switzerland, 10 cents; Prussia, 12 cents up to 65 miles, 24 cents from 65 to 230 miles, 36 cents beyond 230 miles; France, in same department, 1 franc for 20 words, including address, to a point in another department, 2 francs, without regard to distance, reduction to half a franc and 1 franc respectively being contemplated for immediate future.

At the time of the first report, 1866, the inland rate in Switzerland was uniformly 1 franc (or a little less than 20 cents) for 20 words, plus 5 cents for each 10 words more [reduced January 1, 1868, to a uniform rate of half a franc per message], and Belgium had a rate of half a franc (or about 10 cents) for 20 words, without regard to distance—about half a cent more than one-fifth of the average English charge for inland telegrams.

The first line in Belgium was a private one from Brussels to Antwerp, conceded in 1846. In 1850 a law was passed authorizing Government ownership and the Brussels line was bought by the Government in that year—176 kilometers (110 miles) of wire, with all interests and privileges of the company, were ceded to the Government for 60,000 francs ($11,400), or $103 a mile. The rest of the Belgian system was constructed by the Government and the cost was below $65 a mile. The rates were at first (Mar., 1851), 48 cents within 46½ miles, and 96 cents for a distance beyond 46½ miles.[1]

By 1862 the Belgian charge had been reduced to 30 cents for 20 words on ordinary telegrams (not requiring repetitions nor following addressee from place to place, In December of that year the rate was reduced to 20 cents, and in December, 1865, a further reduction was made to 10 cents for 20 words without regard to distance. As 93 per cent of the messages were ordinary, these figures were practically uniform rates. The reduction from 30 to 20 cents was followed by an immediate increase of 80 per cent in the number of messages, and the reduction to 10 cents produced an immediate increase between 80 and 90 per cent. It was this latter reduction which caused the great change in the ratio of telegrams to letters in 1866, as noted above.[2]

After this reduction of 1865 the Belgian management said: "Our telegraphic reform has a twofold object. We desire to place this mode of communication within the reach of all classes and to make it serviceable in all the relations of life."

In his second report Mr. Scudamore said: "The cardinal distinction between the telegraphic systems of the United Kingdom and those of Belgium and Switzerland is this: The latter have been framed and maintained solely with a view to the accommodation of the public, whilst the former has been devised and maintained mainly with a view to the interests of shareholders."

The report of the Belgian Telegraph Administration for 1866 says: "The capital devoted by the Government to the establishment and extension of the telegraphic lines, having been recouped gradually by surplus receipts, need not be taken into account in estimating the cost of the service." The total excess to the end of 1866 of income over annual expenditures and capital was 847,000 francs.

Mr. Scudamore found that the Belgian and Swiss postal telegraphs had been in operation about 15 or 16 years up to the close of 1866. The total working expenses of all kinds during that time were 68 per cent of the revenue in Switzerland and 62½ per cent in Belgium. The Swiss Government had applied 30 per cent of its gross revenue to repayment of capital and had a surplus of 2 per cent. Belgium had applied 26 per cent to repay capital and had a surplus of 11½ per cent, which covered all capital still unpaid and left a clear surplus as above. During the 15 years ending June, 1867, the telegraphs of the United Kingdom reported working expenses amounting to 68 per cent of their receipts and had applied 32 per cent to the payment of dividends and interest, two of the companies having paid in dividends 13 to 17 of their capital.

The reports of the English companies seem to have been twisted a little, even in those early days, for Mr. Scudamore noted that the cost of operation was no more in the United Kingdom than in Belgium, and less than in Switzerland, and as the English rates were more than double, the proportions of receipts to operating cost and the proportion of dividend funds to receipts were probably greater than was reported, it may be that in England then, as in America now, a part of the real profits were devoted to exorbitant salaries for high officials and put down to operating cost instead of appearing in the profit account.

Mr. Scudamore called attention to the fact that on the Continent a postal money order could be sent by telegraph; that a telegram could be deposited in any post office, and that it would be sent free to the nearest postal telegraph office and would be

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[1] Tenth Census U. S., Vol. IV; Ency. Brit.; Pop. Sc. Monthly, Vol. XIX, p. 400. This account of the beginning in Belgium is interpolated here because it belongs with Mr. Scudamore's account by the natural affinity of consanguineous facts.

In Holland the lines are partly private and partly public. The Government has built lines since 1852 and in 1864 bought a private line 55 miles long for $250 per mile of line (the price per mile of wire I can not give, as I do not know the number of wires in the line; if four, as is the average with us, the price per mile of wire was $62).

[2] In his testimony, July 1, 1868, before the Select Committee of Parliament, Mr. Scudamore summed up the effect of reducing rates as follows: In Belgium in the year 1863 a reduction of 33 per cent produced an immediate increase of 80 per cent in the number of messages, and in 1866 a reduction of 50 per cent more produced an immediate increase of 85 per cent in the number of messages. In Prussia (1867) a reduction of 33 per cent in rates was followed by an increase the very first month of 70 per cent in the number of messages. In Switzerland the reduction of 50 per cent Jan. 1, 1868, was followed by a 90 per cent increase in the number of messages in the first three months.

delivered free by messenger or post. Since then the telephone has been thoroughly coordinated with the telegraph as part of the postal system. In Switzerland a telegram may be telephoned to or from a subscriber for 2 cents a message, 4 cents for a nonsubscriber. In Belgium telegrams are telephoned free, a service which brings the telegraph into the home and to the merchant's desk and saves a million messenger journeys a year. The telephone subscriber finds the telegraph glued to his phone and ready to serve him without the delay or expense of porterage. Immense, isn't it? Why can't we have it? Because most everybody's too busy making money for himself to give due attention to fixing things so they'll be convenient and comfortable all round. Since England took the telegraph, she, too, has joined the telephone with it (though the union is not yet complete) and is telephoning telegrams to and from subscribers free of charge.

Mr. Scudamore remarked that "the development of telegraphic communication has been retarded by this system" (the English system before purchase by the State). "That the growth of such correspondence has been greatly stimulated in Belgium and Switzerland by the annexation of the telegraph to the post offices in those countries and the consequent adoption of a low scale of charges," and "that in this country like results would follow the adoption of like means."

The one weak point in Mr. Scudamore's music was the turning on of the tremolo stop when he came to the valuation of the English lines. In his first report, July, 1866, he estimated the fair price for the four principal companies at £2,400,000, on the basis of past and present earnings, cost, depreciation, market values, etc., while in February, 1868, in his second report, he estimated the value of the same properties at £3,000,000 on the basis of market values alone. On pages 36–37 of the first report he said:

Looking on the one hand to the earnings, past and present, of the companies, and on the other hand to their past and present outlay, and to the regular depreciation to which their property is subject, and looking also to the estimation in which their property is held by the public, and which is shown in the market value of their shares I have come to the conclusion that the whole of their property and rights of every description might be purchased for a sum within £2,400,000." On another page of the same report he said: "I have included in the cost of their enterprise all sums paid for patents, all preliminary, legal, and parliamentary expenses, and, indeed, all disbursements of every detail."

In the second report, page 146, Mr. Scudamore said: "I have examined the accounts of the companies to June 30, 1867, and think I put very nearly the right value on their property in my former report. But am anxious now rather to overstate than understate the case, and therefore I propose for the present to consider that the value of the property of the telegraphic companies is represented by the market price of their shares. It is almost certain that in taking this view I am overstating the value of the property of the companies. In the first place, circumstances which will suggest themselves to your grace have combined to run up the market price of the shares. In the second place, it is obvious that the property of the companies is primarily a material property which they value at what it cost them, and from which they have not written off anything for depreciation."

The telegraph companies used every effort to prevent and impede the reform. The objections they raised were:

1. It was not the Government's business to telegraph.
2. There would be a loss if it did.
3. The telegraph would be better conducted under private enterprise.
4. The Government rates would be higher.
5. And the use of the telegraph would decrease.
6. The Government service would be nonprogressive—no stimulus to invention, etc.
7. The secrecy of messages would be violated.
8. The telegraph would be used as a party machine.
9. The Government could not be sued.
10. To establish a public telegraph would be an arbitrary and unjust interference with private interests. The companies had risked their capital in the new enterprise, and just as they were about to get their reward the Government was going to take the business away from them—private enterprise experimented and the people wanted to steal the fruit.

These objections are very familiar. Our monopolists know them by heart, and use them over and over, taking no notice of the answers to them no matter how many times they are refuted. It is easy to answer them a priori, and the overwhelming demonstration of their falsity by the actual experience of England ought to have buried them forever beyond the possibility of disinterment.

1. It is the Government's business to transmit intelligence, and that business includes the use of the telegraph and all other appropriate means of transmission.

2. If rates remained the same, an increase of profit instead of a loss was to be expected by reason of the economies that would result from a united telegraph in combination with the postal service. The people could keep rates up and realize a large profit, or put rates down, thereby increasing the usefulness of the telegraph, and taking their profit in the form of more and better service for the same money. They did the latter, and as a matter of fact they have saved, at the lowest estimate, one hundred and fifty millions of dollars in 30 years—the telegraphing they have done would have cost them at least one hundred and fifty millions more than it has cost, including expenses of operation, extensions, repairs, interest on the capital, water purchase, and all.

3. It stands to reason that a servant appointed and paid by himself, and whose avowed interest and effort are to line his own pocket with the utmost possible "giltiness" consistent with his personal safety—it stands to reason that such a servant will not conduct your telegraph or any other business of yours as well as you can do it yourself, or have it done by your own agent. As a matter of fact, the public telegraph service turned out to be vastly superior to the private telegraph service according to the universal verdict of the English people. Complaints of inaccuracy ceased, and instead of the old delays we find a service as prompt as that of Belgium and Switzerland. "The service is performed with the most perfect punctuality." (U. S. Consular Report on the English Telegraph, Consular Repts., vol. 47, p. 565, 1895.)

4. It was reasonable to expect that the Government rates would be lower, because the Government would work at cost, and would, moreover, secure an absolute economy relatively to private corporations in the conduct of the telegraph. In fact the rates dropped at once one-third to two-thirds, average one-half, and afterwards the ordinary inland rate was again reduced almost one-half.

5. The use of the telegraph doubled the first year.

6. The Government service has adopted new inventions, and shown a progressive spirit in respect to employees, as well as the service of the public.

7. There has been no complaint of violation of secrecy.

8. Nor the least suspicion of partisan use.

9. The Government can be sued and is sued. Claims against the Government are tried judicially the same as other claims.

10. Interference with private interests to accomplish a public good is not arbitrary and unjust, it is the very essence of justice and good government. The private interests of gamblers, saloonkeepers, opium sellers, shipowners, house builders, powder makers, bone grinders, grain elevator men, etc., private interests both good and bad, are interfered with for the sake of the public welfare. Telegraph interests form no exception. The companies had already received large returns on their investment, and would receive full compensation for their capital when the public took their plant—more than full compensation as it turned out.

The companies themselves knew enough to understand that all their pleas from one to nine were nonsense—mere scarecrows to frighten ignorant timidity. It is possible they might have put some faith in the tenth point.

Men who have long enjoyed the privilege of putting their hands in their neighbors' pockets may really regard an interference with their time-honored custom as arbitrary and unjust. Kings and emperors have not been noted for recognizing the wisdom and justice of democracy. No matter how arbitrary and unjust a despotism may be, it will hurl the whole of ethics at anyone who brings a suit of ejectment against it.

The merchants, the press, and the people generally were not deceived by the outcry raised by the companies and a few conservatives who, not being able to distinguish between proper and improper extension of Government functions, were fearful of any enlargement of public activities. The people knew, without reading the refutations of learned men, that the companies' pleas from one to ten were lies and sophistries, that their only real objection was the loss of an opportunity for unjust profits (profits far larger than could be expected from the same capital in any fair field of investment), and that private profits and private interests must yield to the public good even when those interests and profits are just and right, much more when they are in themselves a menace to the commonwealth. It was clear that a postal telegraph would serve the people better and at less cost than a private telegraph, and therefore a postal telegraph must be established.

In 1868, as we have said, the chambers of commerce petitioned the Commons, charging the existing telegraph system with extortion, error, and inadequacy. Mr. Scudamore's reports and the committee's investigations gave overwhelming evidence of the truth of the charge and of the advantages of a national system. The press

urged a change. The liberal leader, Mr. Gladstone,[1] then as always anxious for the public weal and for that alone, took up the measure, which had been introduced under the preceding administration, and July 31, 1868, a law was passed enabling the postmaster general to purchase the whole, or any part he thought fit, of any existing telegraph property. And in 1869 another act was passed giving the post office the exclusive control of the telegraph nusiness.

On the 29th of January, 1870, all the telegraphs in the Kingdom became an integral part of the post office. The Government bought from the companies 77,000 miles of wire with equipment for $27,774,900 in cash paid directly to the companies, plus other considerations estimated as equivalent to $13,632,100, making a total of $41,407,000, or $534 per mile of wire. The lines had cost the companies only $11,000,000, and were really worth at the time of the transfer not more than $8,000,000.[2] This was England's mistake. She paid at least four times the value of the lines, probably more—the French Government put up 68,000 miles of wire with equipment for $66 a mile.[3] The Belgian lines cost $65 per mile of wire, and the Bavarian lines $70 a mile. Mr. Scudamore's very liberal estimate placed the cost of the English lines at $145 a mile. It was affirmed in Parliament that they could be duplicated for less than £2,000,000 (or $126 a mile), and the statement was not disputed. The lines were probably worth less than $100 a mile at the time of transfer.

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[1] It is said that England owes the national telegraph largely to Mr. Gladstone. (U. S. Consular Reps., vol. 47, p. 564.)

[2] Bronson C. Keeler in the Forum, Vol. IX, p. 457. The 41st. Rept. of the Eng. P. M. Gen., p. 37, gives in round numbers £8,000,000 as the payment for existing lines and £2,130,000 for immediate extension. Prof. John R. Commons has made (1899) an excellent study of the English telegraph purchase, citing copiously from the Parliamentary Reports, and has kindly allowed me to run through his MSS. in the Astor Library, with the result of attracting my attention to a number of interesting points, some of which were not noted in my Arena study of the British system in 1896, nor in my recent studies during this revision. Prof. Commons's work also throws new light on many matters I had noted. The chief points just referred to I condense into this note.

July 10, 1868, Mr. Scudamore estimated the cost of reproduction of the English system at £2,300,000. Yet under the agreements between Mr. Scudamore and the telegraph and railway companies, June 30 to July 10, 1868, £5,715,000 was paid directly to the companies and other consideration given, estimated at a value of £2,809,000, and consisting of pensions and commutations of pensions promised redundant telegraph officials and employees thrown out of position by the transfer (a consideration capitalized at £322,546), annuities to railways for way leaves (£23,000 a year, or a capital value on the 20-year basis of £460,000), free transmission of railway messages (capitalized at £227,000), extensions in lieu of abatements (£500,000), etc.

The English bill, 1868, at no time provided for compulsory sale, but simply gave the postmaster general power to buy, at voluntary sale, the whole or part of any telegraph line in the country, providing, however, that if he made such a purchase any other company could require him to buy its plant, and, for this purpose, failing a voluntary agreement, an arbitrator appointed by the board of trade should value the property. The companies strongly objected to valuation by an arbitrator appointed by one party to the bargain (the board of trade being a Government agency), and offered to sell for twenty-five times their net annual revenues. Reference to a select committee was secured and a 20 years' purchase of net receipts for the year ending June 30, 1868, was agreed upon, with payments to railways, free messages, pensions for redundant employees, etc. The franchises bought ran from 3 years to 99 years. The 20 years' purchase of net annual profits was equivalent to buying the property at a value indicated by supposing the net earnings to be 5 per cent on the capital involved. The companies were really making 15 per cent in spite of the fact, pointed out by Mr. Scudamore, that they had not written off anything for depreciation, and by neglecting repairs, manipulating accounts, etc., they widened still more the breach between the supposition and the fact.

During the discussion in Parliament Mr. Goschen opposed the high rule adopted, 20 years' purchase of net profits of the 12 months ending June 30, 1868, 6 months of which period had not then elapsed. The rule gave the companies full opportunity to swell their profit accounts to the utmost, an opportunity of which they were not slow to avail themselves. The shares of the companies rose 50 per cent as soon as the plan of valuation by arbitration with full discretion was set aside and the 20 years' purchase of profits accepted.

In the case of the railways the rule adopted was even more extravagant than with the telegraph companies, for in buying the railway telegraph business the Government paid not only "a 20 years' purchase of the net annual receipts of public telegraph messages received and forwarded by the railway companies on their own account," estimated on the basis of the 12 months ending June 30, 1868, but also "twenty times the amount of estimated annual increase, calculated on the average increase of the preceding three years of said receipts from telegraph messages."

[3] Keeler; H. Rept. 114, p. 88; S. Rept. 18.

When the companies saw public ownership coming they determined at least to make the transfer as difficult and costly as possible. It was easy to raise the value of stock in contemplation of a Government purchase[1]—such a rise would be apt to take place to some extent even without manipulation. In some cases shares that were selling for $125 in 1866–7 realized the holders $400 when the lines were sold to the Government. The shares of another company rose from $132 in November, 1867, to $255 at the time of the Government purchase. In another company the shares rose from

[1] It was charged that the companies neglected to apply the usual amounts to maintenance; $2,500,000 was deducted on account of depreciation as determined by the engineer, and as the purchase was at 20 times the net profit, it appears that the arbitrators allowed about $125,000 for depreciation the companies had failed to make good. This was wholly inadequate probably. The companies are supposed to have increased their dividends at least 1 per cent, by withholding expenses for repairs, renewals, etc. It is certain that the companies' net earnings went up by leaps and bounds, at least their accounts of net earnings did, and it is also certain that the Government had to spend a large amount of money immediately after the transfer to put the lines into satisfactory condition. As an example of the way in which net earnings rose on wings of some sort—hope, perhaps, or paper, or a compound pinion—take the case of the Electrical & International Telegraph Co.:

Year.	Annual net earnings reported by company.	Increase.
1865	$616,000	.....
1866	647,000	$31,000
1867	706,000	59,000
1868	833,000	127,000

The order of events (according to a table prepared by Prof. Commons, with some additions by the present writer) was as follows:

Thos. Allan's "Reasons for Government Annexing Telegraph to Post Office"	1854
Mr. Baines's plan for a postal telegraph	1856
Memorial of Edinburgh Chamber of Commerce	October, 1865
Scudamore's first report	July, 1866
Notice in London Gazette of Government's purpose to introduce bill for purchase of telegraph	November, 1867
Scudamore's second report	February, 1868
Bill introduced	Apr. 1, 1868
Second reading	June 9, 1868
Referred to select committee	June 23, 1868
Agreements between Scudamore and telegraph companies	June 30, 1868
Agreements between Scudamore and certain railways	July 8 to 10, 1868
Report of select committee, adopting said agreements	July 16, 1868
Royal assent	July 31, 1868
Arbitration awards on net earnings	May 18 to July 6, 1869
Money bill introduced	July 6, 1869
Royal assent	Aug. 9, 1869
Transfer	Jan. 29, 1870

The announcement that the Government intended to introduce a purchase bill caused the stock of the United Kingdom Co. to advance from 1½ to 3, that of the Electric rose from 142½ to 164½, and British and Irish Magnetic went up from 89½ to 117½. Taking the whole period of the negotiations, the largest company, which received $15,000,000 and had no debt, experienced a rise of 86 per cent in its stock values. In the case of the next largest company, which received $6,000,000 and carried a debt of $1,103,000, the stock trebled in value during the negotiations, and in the third company, receiving $3,500,000, the stock quadrupled in value, all within a period of two years.

The first week in June, 1868, the stock of Reuter's Telegraph Co. stood at £21 ($102). Then an agreement was made by the Government to pay the company 20 years' net annual profits, and in September, 1868, about five weeks after the passage of the act, the stock was quoted at £56¼ ($273), a rise of about 170 per cent in three months.

Such were the results accomplished by departing from the true rule of paying the fair value of the property and relying on the false assumption that the net earnings might be deemed 5 per cent on the fair capitalization. The companies rightly objected to the full determination of value by a single arbitrator appointed by the Government, but to adopt a 20-years' purchase and leave nothing to arbitration but the determination of the net earnings after the companies had long notice and ample opportunity to prepare their accounts for the time of stress, was simply to put the whole matter, within wide limits, into the hands of the companies. Mr. Scudamore should have held to his first rule of determining the fair value in the light of all the circumstances of the case. There are indications that he feared the companies would be able to defeat the measure unless they were overpaid for their property. One naturally feels that he should have done the fair thing and gone to the people with the whole truth, relying on them to carry the measure through. Yet if the companies had not been conciliated and the passage of a postal-telegraph bill had failed through their strenuous opposition, it would have cost the people of Great Britain in excessive tolls during all these 30 years since the transfer, many times the excess of value paid the companies in 1870. I can not help feeling, however, after a full review of the case, that if the telegraph bill at the very start had provided for the payment of the fair value of the property as it stood at the time of Mr. Scudamore's first investigation, July, 1866 (or even July, 1867), plus what could be shown to have been put into the plants after that date, leaving the determination of value, not to one arbitrator, but to a board of arbitrators fairly representing all the interests involved, or to a jury in regular judicial procedure, the English Government might have bought the telegraph at a price as near the truth as that paid by the Belgian Government. If the Government had offered a fair price to the leading lines (it was a mistake to promise to buy all the rattletrap lines in the Kingdom), and announced the purpose of building competing lines of its own if the offer were not accepted, the lines could have been secured at their real value.

$30 to $133.[1] And yet the companies did not always get what they asked by any means. The Northeastern Railway Co. claimed £540,292 in compensation for its telegraph department besides a large sum for interest; it was awarded in all £168,696. The Metropolitan Railway Co. claimed in all £433,000 and were awarded £51,907. These two instances out of more than 20 suffice to show the extent to which the fraudulent greed of the companies would have bled the country if it had had its way unchecked.[2]

The Government's first move was the rapid extension of the lines into districts hitherto unprovided with telegraph facilities, and the reduction of the tariff to the uniform rate of 1s. for 20 words social or commercial, and 75 words press by day, 100 words by night, all irrespective of distance, a reduction estimated at one-third to one half.[3]

The result was a vast and immediate increase in the popular use of the telegraph. Social messages and newspaper traffic developed enormously. The telegraph became something more than an aid to speculation, and began to be of use to the people. The Government continued year by year to improve the means of communication, and in 1885 the tariff was further reduced to 12 cents for 12 words and 1 cent for each additional word. The address, however, which up to 1885 had been free, had now to be counted and paid for. Concerning this change Postmaster General Morley says:

"The reduction of the tariff in 1885 opened a new era. A comparison of the old tariff of 1s. for 20 words with 3d. for each additional group of five words and the new tariff of 6d. for 12 words with ½d. for each additional word is complicated by the fact that the free addresses allowed under the former tariff were abolished under the latter. But the point that can be clearly seen is that whereas it had been impossible to send a telegram, however short, at a less charge than 1s., a telegram of 12 words could now be sent for 6d. The fact that addresses were now charged for did not prevent the senders of telegrams from so reducing the number of chargeable words as to obtain the full benefit of the lower tariff. The actual length of the telegrams was largely curtailed, especially in the addresses; and economy was effected through the operation of certain new rules, one of which prescribed that figures, formerly chargeable each as a single word, should be counted at the rate of five figures to a word. In the result a large proportion of the total number of telegrams was brought within the minimum charge of 6d., while the average charge, which had been 1s. 1d. in 1885, was reduced to about 8d. in 1886, and has since fallen below 7¾d. Under the reduced tariff, telegraph business again received a powerful stimulus. The charge was so low as to popularize the telegraph service still further, and to render it available for purposes for which it had not hitherto been used. In particular, it became adapted to the requirements of local traffic; and in London the local telegrams were more than doubled in about two years, having risen from about 1,800,000 in 1884–85 to 3,800,000 in 1886–87." [4]

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[1] H. Rept. 114, p. 36. B. C. Keeler in Forum, Vol. IX, p. 450. Wanamaker's Arg., p. 130.

[2] Twenty-fifth Rept. of Eng. P.-M. Gen., 1879, p. 21.

[3] Considering ordinary inland messages (not including press dispatches) Mr. Scudamore calculated that the average rate was reduced from 36 cents to 26 cents, or about one-third. (Ex. Doc., 1871–72, Postmaster General Creswell's Rept., Nov. 18, 1871, p. 26, citing Mr. Scudamore's figures.) In the questions asked by the Select Committee the average English charge was stated, without challenge, as 1s. 11d. (46 cents). This would make the reduction to 1s. almost 50 per cent. The companies stated that 55 per cent of their ordinary business was within the 100-mile limit at 1s. 30 per cent, at 1s. 6d. 10 per cent, at 2s. over 200 miles in Great Britain, and 5 per cent at 3s. up between Great Britain and Ireland. This, however, gives no true idea of the average cost per message, because a large number of messages had to go over the lines of more than one company and might have to pay 1s. to each of two or more companies. The porterage charges, moreover, even within the limits of a town or city, were often more than the cost of telegraphic transmission. (See note 3 in this chapter.) Taking the entire business into account, Mr. Price and our Senate committee, 1874, say that the average rate was reduced about one-half. (S. Rept., 242, 43–1, p. 9; Postal Telegraphy, by J. A. Price, November, 1882.)

Two years after the transfer the English Postmaster General estimated the average reduction on ordinary messages at 24 cents, and the average charge on such messages at that time was 24 cents for 20 words, not including the address. In 1883 Parliament resolved on a reduction, to take effect Oct. 1, 1885, making a uniform charge of 12 cents for 12 words (including the address), and 1 cent per word added; five figures to count as one word, instead of each figure being counted a word, as formerly.

In 1891 three reductions were made—free porterage at night, lower rates for private wires, and 20 to 30 per cent reduction on foreign messages. The English Postmaster General (1896–97) reports reductions in foreign rates running from 10 to 66 per cent and the next year (1897–98) he reports three concessions—(1) extension of free delivery to 3 miles (day or night) and reduction of porterage charges beyond that distance; (2) free delivery at all hours in the whole metropolitan district; (3) relief of guarantors of new offices in out districts of one-half the burden of any deficiency. The cost of extending the free delivery to 3 miles was estimated at £15,000, and the reduced porterage at £37,000 during the year, or £52,000 total, while the value of the additional telegrams estimated to be due to these concessions was £26,000, $126,000 net out-go at least.

This persistent policy of giving more and more service for every shilling has been carried out in the face of interest deficits, and has been accompanied by an equally persistent policy of lifting wages and improving the condition of employees, as noted in chapter iv, — Apr. 1, 1881, the general lift of wages was estimated at 20 to 25 per cent above the level of 1872; night work was reduced to seven hours and allowance was made for Sundays and holidays as overtime.

[4] Forty-first Rept. English Postmaster General, 1895, p. 35.

No class or interest was more benefited by the change than the press. The comparison between the year before and the year after the transfer is clearly and concisely stated by Postmaster General Creswell in his report for 1871:

"The companies before the transfer sent news to 306 subscribers in 144 towns only in the United Kingdom; the postal telegraph sent news to 1,106 subscribers in 365 towns. The companies sent news to 173 newspapers only; the postal telegraph sent news to 467 newspapers, showing an increase of 221 in the number of towns to which news was sent, an increase of 800 in the total number of subscribers for news, and an increase of 294 in the number of newspapers taking news. There was, moreover, a vast increase in the quantity of news transmitted. The companies sent, during the session of Parliament, nearly 6,000 words of news daily; during the remainder of the year they sent nearly 4,000 words daily. The postal telegraph sent, during the session of Parliament, in behalf of the news associations, nearly 20,000 words of news daily; and during the remainder of the year nearly 15,000 words daily. The postal telegraph also transmitted 15,000 to 20,000 words daily for the ordinary newspaper correspondents, and seven newspapers rented special wires during the night at the uniform rate of £500, instead of rates ranging from £750 to £1,000, as before." [1]

Postmaster General Morley speaks of the press service as follows:

"The charge specified in the telegraph act of 1868 for press telegrams is 1s. for 75 words during the day, or for 100 words at night. But a proviso was added that for copies the charge was to be only 2d. per 75 or 100 words, and no condition was laid down as to the copy being for the same town as the original. The newspapers accordingly combined to receive from the news associations messages in identical terms, and by dividing the cost they are enabled to get the benefit of a rate which comes nearer 2d. than 1s., the average charge being, in fact, about 4½d. per 100 words." [2]

And again:

The tariff for press telegrams in this country, working out as it does, on the average, at about 4½d. per 100 words, is the lowest in the world, and the amount of work performed for the press is without a parallel in any other country. Although the press telegrams, 5,400,000 in number, are included in the total of 71,589,000, no allowance is made for their exceptional length. Being of an average length of about 120 words, they contain an aggregate of about 650,000,000 words as compared with an aggregate of about 970,000,000 in all other telegrams. It is a striking fact that the words dealt with for the press form no less than two-fifths of the total number of words." [3]

The wonderful growth of the English system since 1869 is shown in the following table: [4]

TABLE XIII.

	1869	1870	1871	1879–80	1894–5	1898–9
Number of officers	2,488	3,000	5,000	5,331	10,000	10,816
Miles line	5,601	15,000	22,000	23,156	35,000	43,499
Miles wire	48,990	60,000	83,000	110,851	215,000	308,307
Instruments	2,200	4,000	6,000	12,000	26,000	.....
Messages	6,500,000	10,000,000	12,500,000	26,547,000	71,589,000	87,043,000

Note the great extension of lines and the increase of offices and instruments in the very first year of public ownership.

Even before it took charge of the traffic the Government built many new lines, and put up a great deal of wire in order that it might so far as possible offer the people reasonable facilities at the very start. The statistics as to offices do not fully disclose the difference between the two systems, for, as we have seen, in many places the offices of several different companies were clustered together within a few rods of few rods of each other, while each office of the postal telegraph was in the center of a distinct locality.[5] Moreover, the post offices and post boxes are used as places of deposit, for telegrams, stamped like letter for transmission at uniform rates. The number of contacts of each hundred persons with the postal facilities is very much

[1] Ex. Doc., 1871–72. Postmaster General's Rept., Nov. 18, 1871, pp. 26, 27.

[2] Forty-first Rept. English Postmaster General, 1895, p. 37.

[3] Ibid. pp. 35–36. For the composition of the 71,589,000 messages in detail, see note 17, Chap. IX, of this discussion.

[4] The facts will be found in the 41st Report of the Eng. P.-M. Gen'l, pp. 34, 36; the report of Hon. Henry Fawcett, Aug. 14, 1880; the Report of the Exec. Com. of the Nat'l Board of Trade, Nov. 15, 1882; "Postal Telegraphy," by J. A. Price; P.-M. Gen'l Creswell's Rep. for 1871; Report of Select Com. on Telegraphs, 1876 (Commons Session Papers, No. 357), and a letter just at hand from the Eng. post office relating to the facts in the last column, 1899.

[5] Forty-first Report of English Post Office, p 34.

greater than with the telegraph offices, especially when they are chiefly located in railway stations as was the case before the transfer. The number of times per month that the average citizen goes to the post office or passes near it or a post box is vastly greater than the number of times he goes to a railway station or passes near it. Referring to English progress in the middle of the postal year 1870–71, Senate Document 79 says:

"Since the purchase 1,807 old offices have been continued in operation and 2,133 new offices opened. Ninety-one per cent of the telegrams pass through the new offices because they are easier of access and more conveniently located.[1]

The number of messages per annum nearly doubled within two years after the change, and the volume of business transmitted, the words sent over the lines, came near doubling the very first year after the transfer.[2] The actual amount of work done by the telegraph, the number of word-miles, in all probability more than doubled the first year after the transfer.[3]

The percentage of growth in the business of the British telegraph during the first year of public ownership was four times greater than the largest growth ever made in one year by the American system according to the figures published by the Western Union. The growth of the British telegraph from 1869 to 1899 is double the growth of the American telegraph in the same time, the business of England being now over thirteenfold the business of 1869, while the business here is only six times our business in 1869—a contrast which is greatly intensified by the fact that our population has increased about three times as fast as Great Britain's, so that relatively to the population the English public telegraph has grown six times as fast as our private telegraph. The following table shows the facts—the year 1889 being taken instead of the present because the census affords precise data as to our population for that year.[4]

TABLE XIV.

	Population in millions.			Messages in millions.		
	1869	1889	Increase.	1869	1889	Increase.
			Per cent.			*Per cent.*
Great Britain	31	37.8	22	6.5	62.4	860
United States	38.5	62.4	63	13.0	57.0	340

The reader will note that the percentage of increase in population here is nearly three times the English increase, while the percentage of increase in the English telegraph is more than two and a half times the telegraph increase here; wherefore the English telegraph has grown more than six times as rapidly as ours relatively to the pop-

[1] S. Mis. Doc., No. 79, 42-3, p. 5.

[2] This was due partly to the large increase in the number of messages, partly to the increased length of messages resulting from lower rates, and partly to the enormous increase of press work. (See Creswell's Rep. 1871, above quoted.) The data indicate about 2,000,000 words of press in 1869, and 12,000,000 words in 1870—a tremendous growth which has continued to the present time, the words of press handled by the telegraph in the year 1894-5 being 650,000,000. (41st Rep. of Eng. Postmaster-Gen'l, p. 36.) The U. S. Consular Report of 1895, cited in S. Doc. 205, 54-1, p. 49, places the press work of 1870 at 22,000,000 words, but this does not agree with the data of reports made at the time so far as counsel have been able to inspect them.

[3] The transmission of one word one mile constitutes a word-mile, which we think might be used as the unit of telegraph work, just as a ton-mile is the unit of railroad work. It wouldbe more scientifically correct perhaps to take a letter-mile as the unit, since words vary so much in length; but so minute a unit would prove burdensome in practice, and in comparing any considerable volumes of business the average length of a word will be found to be so nearly a constant quantity that the word measure will give very satisfactory results. The number of word-miles may be found by multiplying the number of words transmitted by the average distance of transmission in miles; or by multiplying together the number of messages, the average number of words to a message, and the average transmission in miles; or by multiplying the words of each message by the distance it is transmitted and adding the products. The number of words transmitted in 1869 appears to have been about 175 millions, and in 1870, 300 millions, within 16 per cent of doubling the quantity of words; and as the average distance of transmission was considerably greater in 1870 by reason of the large extension of lines across more thinly peopled districts, there seems no room to doubt that the actual business done by the telegraph of 1870 was more than double the business of 1869.

[4] The number of messages sent on all the lines in the United States in 1869 is taken from Western Union statements and testimony by the Washburn committee in 1870 (H. Rep. 114, pp. 21, 22, 37, 49, 125, 129), and the testimony of Gardiner G. Hubbard (Ibid., p. 150). The committee's own estimate was higher, We have taken the lowest figure that will accord with any of the statements made at the time so as to give our telegraph every possible advantage in the comparison. The number of messages sent on all our lines in 1889 is taken from Mulhall's Dictionary of Statistics. The population of Great Britain is stated on the same authority. The population of the United States is from the census returns, and the message statistics of Great Britain are from the 41st Rep. of the Eng. P.-M. Gen'l. See further, "Postal Telegraphy," by J. A. Price; Rep. of Nat. Bd. Trade, Nov. 15, 1882; Hon. Henry Fawcett's Rep., Aug. 14, 1880.

ulation. In 1869 there was about one message to five persons in England and one to three persons in the United States; our telegraph was considerably ahead of the English telegraph when both were in private hands, but when the English system became public it speedily came up with ours, passed it, and left it far in the rear, and now (1899) the messages are over two to each person in Great Britain and about one to each person here.

On the other hand, the postal service, which is public in both countries, has developed much more rapidly in this country than in Great Britain. Starting centuries after the English post, our system has overtaken it and passed it.[1]

Aside from interest on the telegraph debt (which was a mistake we do not need to imitate) the English telegraph has paid all expenses (operation, repairs, extensions, etc.) from January, 1870, to July, 1899, and given the country a net profit of $6,000,000, the profit above operating expenses alone being over $27,000,000.[2] The postal service as a whole turned into the treasury last year more than $17,500,000 net—enough to pay interest on the aforesaid debt and still leave a clear surplus of more than $16,000,000.

The success of the English system has been achieved under considerable difficulties. While the change of tariff in 1885 reduced the average amount received for a telegram from 1s. 1d. to 7¾d., a large addition was made to the main element of cost, namely, the pay of the staff. The proportion of the amount expended in salaries and wages to the total telegraph expenditure, which, in 1881, before the revision of Mr. Fawcett, stood at about 55 per cent, has risen to about 65 per cent.[3] From 1870 to 1895 the proportion of wages to receipts rose from 39 per cent to more than 72 per cent.[4] Since 1881 the hours of labor have been reduced from 56 per week to 48 day and 42 night, and all Sunday work is paid for as overtime.[5] Besides this, allowances for good conduct have been introduced, and the workers have pension rights, full pay during absence on sick leave (instead of half-pay as formerly), vacations of two to four weeks on full pay, medical attendance free, etc.[6] At the lowest estimate the extra wages paid by the postal telegraph above the competitive level of remuneration as shown by the pay in the railway service (see Ch. IV), together with vacations, sick benefits, pensions, etc., amount to $2,000,000 a year, or enough to pay the $1,500,000 of interest on the telegraph debt and leave a large surplus besides. This $2,000,000 was not paid for the telegraph, but for the elevation of labor, for good citizenship, and manhood. Considering what was required for the telegraph itself, the system pays its way, interest and all.

In addition to all this the department loses a large sum each year on press messages which are carried below cost.[7] If we take the average of the English estimates of loss on press dispatches, we should find a loss of $900,000 on the 750,000,000 words of press matter in 1899. In addition to this about $230,000 worth of messages are carried free for the railways. The country makes the newspapers and railways a present every year of a sum that is nearly sufficient to pay the interest on the telegraph debt.

Finally "the post office has had to contend with an increasing competition on the part of the telephone companies, who have chiefly competed in that class of business, the local traffic, which afforded, under the new tariff, the greatest promise of growth. It is stated by the National Telephone Co. that the volume of their business is equiva-

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[1] For 1892 the total correspondence according to official international statistics stood 76.8 per capita in the United States and 71.2 in Great Britain. (Forty-first Rept. English Postmaster General, p. 2.) For 1894-95 the figure was 74 for Great Britain, and about 77 for the United States. The number of letters and postal cards dealt with by our post office is about one-fifth less per capita in the United States than in Great Britain. (Mulhall's Dictionary of Statistics, p. 457; 41st Rep. of English Postmaster General, pp. 2, 40; Rept. of Postmaster General of U. S., 1894, p. 32.) But the total use made of the post office is greater with us than in Great Britain. The beginning of the Government postal service in Great Britain goes back to the 13th century. Mounted messengers in royal livery carried Government dispatches. The period at which these public messengers began the systematic carriage of private letters is variously stated as the 13th, 14th, 15th, and 16th centuries. That it was at least not later than the 15th century seems to be proved by private letters still existing and bearing indorsements showing that they were conveyed by relays of men and horses under Government control. Sir Brian Tuke (1533) is the first postmaster whose name has come down to us. James I greatly improved the service, and in 1607 made James Stanhope postmaster general in England. In America the first notice we have of the post office is in the records of the General Court of Massachusetts in 1839. In Virginia the colonial law of 1657 required every planter to provide a messenger to convey dispatches as they arrived to the next plantation, the forfeit in case of failure being a hogshead of tobacco. In 1672 the Government of New York established "a post to goe monthly from New York to Boston." The office of postmaster general of America was created in 1692, and Franklin became the acting postmaster general in 1753.

[2] Forty-fifth Report of English Postmaster General. See Ch. I, note 12.

[3] Forty-first Report of English Postmaster General, p. 37.

[4] Mr. Morley's returns to the Commons, Feb. 11, 1895.

[5] Forty-first Report English Postmaster General, p. 11. Counsel has not been able to ascertain with precision the hours under the old regime of private telegraphy, but from the best information attainable it appears that on the average they were not less than 75 to 80 per week. It is likely they were more rather than less except in a few of the largest offices.

[6] Forty-first Report of English Postmaster General, pp. 7, 11.

[7] Ibid., p. 37.

lent to 280,000,000 messages of an average length of 100 words each. A good proportion of this vast business would undoubtedly in the absence of the telephone have been transacted by the post office."[1] Yes, and if Great Britain had not dozed off again after she captured the telegraph, but had kept awake and made the telephone service a part of the post-office work as it ought to be, if Great Britain had done that the whole of the 28,000,000,000-word business would have come to the post office and a great deal more with it, for the low rates of public service would have enormously increased the business in the case of the telephone just as they did in the case of the telegraph.[2]

The difficulties under which the English postal telegraph has labored may be summed up thus:

1. Excessive price paid for the companies' lines.
2. Free service to railways.
3. Carrying press matter considerably below cost.
4. Great reduction of rates.
5. Large wages and benefits to employees beyond the requirements of the competitive market.
6. Lack of due coordination with the telephone.

During the first two years of public operation there was a surplus of $328,000 above interest, and all in spite of the large reduction of rates at the very start, but the lifting of wages soon wiped out the surplus. The department nevertheless continued to raise wages, shorten hours, and lengthen vacations. The English operator has had two decided increases of pay since 1881, while his American brother has had four marked reductions besides a continuous guerilla warfare on individual positions. He is moreover as a rule insecure in his position, whereas the English operator is sure of his place during good behavior and is not cut off in sickness or old age, but is retired on a pension proportioned to his years of service.

Opponents of a public telegraph in this country now raise but one point against the English system, viz, that it entails a deficit. To this objection there are several answers:

(1) Even if all that is said on this score were admitted, the total cost of the telegraph service, deficit and all, is very much less than the same service would cost the people under a system of private telegraphs. The total cost to the people, including the alleged deficit, is probably less than half what they would have to pay for the same service if the lines were owned by private companies.

(2) The telegraph in England pays a good profit above the cost of operation and maintenance. It is the payment of interest on the overlarge telegraph debt that causes a deficit. The Government paid the companies over four times the value of their lines. If only the actual value had been paid there would not be a deficit—the income would pay interest as well as operating cost and leave a clear profit. The Government should have built lines of its own, or threatened to build them if the companies did not sell at fair value, or reduced rates till the inflation was squeezed out of telegraph capitalization and then bought the lines at their true value. The law of 1866, under which our companies do business, gives the National Government a right to buy the lines in the United States at their real value.

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[1] Forty-first Report of English Postmaster General, p. 35.

[2] When the Government took the telegraph the telephone was not in use. In 1880 several telephone companies began business in England. The postmaster general at once brought suit on the ground that the telegraph acts gave the Government a monopoly of all improvements in telegraph communication, and in the same year the case was brought before the Exchequer Division, and decided December, 1880, in favor of the Government. The postmaster general, however, allowed the companies to continue their business on condition of paying a small royalty (10 per cent), and numerous licenses have been since granted, so that telephonic communication has been substantially left to private companies, with the result that they have absorbed an enormous business and a vast revenue which might have been gained by the people, and really belonged to them under the acts of 1868 and 1869. (27th Rept. of Eng. P. M. Gen., p. 5; 28th Rept., pp. 5, 6; Law Journal Reports, January, 1881.) England has shown a disposition to mend her fault by the purchase of the telephone. The telegraph act of 1892 authorized the purchase of the trunk lines and the construction by the Government of a telephone network to connect the chief centers of the United Kingdom. Proposals were long pending between the Government and the National Telephone Co., which has absorbed all the others, for the purchase of the trunk lines, but it seems difficult to make satisfactory arrangements for such purchase of the arteries alone, leaving the capillaries disconnected, and the prospect is that the Government will have to make the whole system public. (Hazell's Annual, 1896, p. 639.) Later information shows that the Government has already constructed a system of trunk lines, a part of which was opened to the public in 1895 and has worked very satisfactorily. The London Electrician of June 14, 1895, said: "We may expect that as soon as the telephone trunk system of this country has passed into the charge of the able heads which direct the telegraph system of the United Kingdom, the full capacities of interurban telephoning will be made apparent." The Electrical Review also speaks of the telegraph management as vastly superior to that of the telephone. (The post office now (1899) has the postal trunk telephone system in thorough operation, having spent six and one-half millions of the eleven and one-half appropriated by Parliament for the purchase and development of the trunk system. Postal exchange wires are increasing also. Rates have been reduced. The service is much improved. Business is rapidly growing. (45th Rept., of P. M. Gen., 14, 15, 72.) The latest word is that the post office has determined to tear up over 400 miles of London streets and lay therein an underground system of telephone communication, to be owned and operated by the city. The system will cost $10,000,000, and its completion will mean a revolution of telephone charges and rentals in London. (City Government, vol. 8, p. 119.)

(3) If the English postal telegraph paid competitive wages there would be no deficit.

(4) If the profits of the post office had been used to pay for the telegraph there would have been no deficit. The telegraph was bought to improve the postal service; the post office should have paid for it just the same as for pneumatic tubes or postal boxes, and it was able to pay for it out of the postal service of two or three years. Even now if the net profits of the post office were applied to the telegraph debt for two and one-half years the service thereafter would be free of interest and entirely self-sustaining in spite of low rates, high wages, and big gift to the railways and newspapers.

(5) As in our post office, there would be no deficit if the railroads carried the mails at the same rates they get for carrying express matter; so in England if the railroads paid for the service rendered them by the public telegraph and the press dispatches paid actual cost, there would be a large profit to the telegraph account notwithstanding the overgrown debt.

(6) English telegraph officials declare that if expenses were properly apportioned between the telegraph and the post there would be a profit now on the telegraph service above interest and all other expenses. (Delany's testimony, see Chap. XIII, 3.) Other authorities say that the post and telegraph are so fused that it is impossible to make any accurate division of the expenses. The post and telegraph together yield a clear profit of over $16,000,000 a year, with an expenditure of sixty-four millions. If the postal authorities make an error of 2 per cent against the telegraph department in apportioning the blended expenses between the telegraph and the post in the yearly balance sheet the deficit would be more than accounted for.

(7) In view of the tangled accounts so difficult to unravel and the fact that the telegraph is an integral part of the postal system, the better financial test is the net result of the postal business as a whole, with its profit of sixteen millions and more above interest and all. There is no more wisdom in attempting to separate the telegraph from the system of which it is a part and aiming criticism at it by claiming that it does not pay expenses and interest on inflated debt—no more sense in this than there would be in separating the pneumatic tubes or the post boxes and denouncing them because the separate revenue directly traceable to them is not enough to cover the cost of their maintenance and interest on their purchase—no more sense than there would be in separately considering the elevators of a building or the streets of a city and condemning them because they don't take in enough to pay for themselves in cash. When the telegraph is a separate institution in private hands it is proper for the stockholders to judge it by their cash receipts, but when the telegraph becomes a public institution and part of the postal system very different tests come uppermost. The financial results of the whole system upon the whole business of the country is to be considered, and above even this we must note the intellectual and social results as of vastly more importance than dollars and cents.

(8) The English Government regards an efficient telegraph service at low rates as of such great importance to the business interests of the community that the indirect financial benefits much more than balance any possible deficit, and the civilizing and social benefits are beyond computation in money. On this point read the following extract from the United States Consular Reports (vol. 47, pp. 565–566):

"The English Government does not consider the telegraph service as a means of revenue for the treasury, but as a means of information for the whole country, giving facilities of all kinds for its use and extension in all the social classes. In favoring the increase of trade by this instrument of progress it well knows that the treasury will benefit indirectly from the augmentation of the general wealth."

The difference between public and private enterprise is strikingly shown in the statement made in 1876 by a committee of the Commons that the superintending and managing staffs of the post office in 1876 comprised 590 persons, as against 534 persons on the staffs of the private telegraph companies in 1867, although the telegraph system of 1876 was more than three times the bulk of the system in 1867, and the messages were over twenty millions as against less than six millions in 1867 [1]—nearly a two-thirds saving in the item of superintendence and more than two-thirds in the money paid out for superintendence, since the salaries of public managers are much more modest than those which the managers of private corporations vote themselves.

The economy to the public in the cost of transmission clearly appears in the sharp comparison stated by our Senate committee in 1874:

"The 18,000,000 messages of last year cost the public just what nine millions would under the old system." [2]

And to-day nearly 36,000,000 messages are transmitted for the amount that 18,000,000 cost in 1873,[3] so that $1 will buy about four times the telegraph service in England

[1] Report of Select Committee on Telegraphs, 1876 (Commons Session Papers, No. 357), p. iii.
[2] S. Rept. 242, 43-1, p. 9.
[3] See 41st Rept. of English Postmaster General, pp. 37, 66.

now that it would in 1869 under private ownership, and yet telegraph labor is far better paid now than it was then. In this country $1 will buy only a little more than twice as much telegraphing as in 1869, according to the Western Union reports, and labor gets a great deal less than it did, instead of more as in England. In Great Britain the money that would pay for a message in 1869 will pay for four messages now. In the United States the money that would pay for a message in 1869 will pay for about two messages now,[1] and the money that will buy one message here will buy over two in Great Britain, the average rate here being 31 cents and 15 cents in Great Britain. Public ownership has about doubled on "competition" in progressive economy and reduction of rates, in spite of the shrinkage of wages in this country and the contraction of the currency.

The progress of the English telegraph in respect to quality has been as marked as in respect to quantity and reduction of cost. Not only have all accusations of extortion become dim memories of the old régime, but its sister complaints of error, inadequacy, and delay have likewise practically ceased to exist, while with us the volume of complaint on all four counts grows greater year by year.

The United States consul at Southampton, writing in 1895, says:

"The service is performed with the most perfect punctuality. It is calculated that the average time employed to-day in the transmission of a telegram between two commercial cities in England varies from seven to nine minutes, while in 1870 (under private ownership) two to three hours were necessary." [2]

This shows that the managers of the postal telegraph have been alive to their duty of improving the organization of the service and adopting better methods of communication. In 1870 the telegraph sent only 75 words a minute and one message on a wire—now it sends 500 words and more in a minute and 5 or 6 messages travel at once on a single wire.[2] England has adopted and put in practice inventions that the Western Union has kept out of use in America.[3] England has adopted the telephone, the multiplex, and the automatic in her postal system, doing at least half her telegraphing with the latter, and the department is always pushing forward to new improvement;[4] the Western Union has done very little with any machine system, nothing with the multiplex, and refused the telephone entirely, though it might have had it for a song. The English telegraphic engineers stand in the front rank. We have seen that the Western Union sent for one of them to come to the United States and examine its lines and instruct it what to do with them, and that he found the said lines in bad condition and told the Western Union how to doctor them.[5] The English electricians have not deteriorated because of the transfer of the telegraph to the Government. They are just as anxious to discover improvements as ever—more so, in fact, because they are surer of appreciation and reward—the public service is more progressive than our private service and therefore promises more to progressive men—England welcomes telegraphic invention because she aims at service—the Western Union aims not at service, but at money, and welcomes only such inventions as will help her make more money without sacrificing her investment; if her capital is endangered, no matter how greatly the discovery would improve the service, she frowns upon it, boycotts and imprisons it.[6]

In respect to adequacy the superiority of the English system is equally clear. It would not be fair to compare the number of offices or messages per square mile, for England is more thickly populated than the United States, but it is fair to compare the relation between telegraphic facilities and postal facilities in the two countries.

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[1] In statements made at the time the Western Union said that its average charge per message in 1867 was 57 cents, and in 1869, 62 cents. (Report of the president of the Western Union for 1869, p. 41; S. Mis. 79, 42-3, p. 7; H. Rep. 114, pp. 20, 37, discussing W. U. pamphlets and reports, and pp. 125, 127, 129, President Orton's testimony.) The vaerage cost to the company per message in 1869, according to President Orton, was 40 cents. (H. Rep. 114, Orton's testimony, p. 129.) The average charge is now reported as about 31 cents and the average cost 23 cents.

In later statements the Western Union, in tabulating its statistics from 1866 down, has made the average charge 89 cents in 1869 and over $1 in 1867-68, and the average cost to the company is stated as 54 cents in 1869. (S. Mis. 79, p. 7; Bingham Hearings, 1890, p. 53, and recent reports of the Western Union Co.) This ingenious improvement in bookkeeping makes it appear that Western Union charges ahve dropped from more than $1 to 31 cents, instead of from 57 to 31 cents, as indicated by the early reports, and that the cost to the company has fallen from 54 to 23, instead of from 40 to 23. A variation of nearly 50 per cent between statements of the same fact by the same company suggests a doubt whether any statements of cost or any other statements of that company can be much relied upon.

[2] United States Consular Reports, Vol. XLVII, No. 175, p. 564, Feb. 4, 1895.

[3] Jour. Soc. Tel. Eng., Vol. XV, p. 231; and S. Doc. 291, 54-1, pp. 2, 6, Delany's testimony.

[4] The English postal telegraph authorities have shown great interest in wireless telegraphy, have offered facilities for experiment that could not be obtained from the private companies in this country, and have shown in every way a progressive, liberal, and enlightened spirit. (See Ch. XV, 9.)

[5] Ch. III, two pages after Table III, Mr. Varley's verdict. Way along in the eighties we have evidence of the Western Union getting English operators to come to New York to help it establish a part of the English system in that city. See Ch. IV, note 35.

[6] See Ch. VIII.

Great Britain has 21,500 post offices and 10,800 telegraph offices, about one-fourth of which are railroad offices. The Western Union (the Mackay offices are mostly needless duplications) has 22,280 offices (about three-fourths of which are railroad offices, or situated at places inconvenient or inaccessible to the general public, such as stock exchanges, policy shops, etc.), as against 75,380 post offices. The relation between the telegraph and post office is therefore 1 to 2 in Great Britain and 1 to 3½ here, including the railroad offices, and 1 to 2.6 in Great Britain as compared with 1 to 10 in the United States, taking the commercial offices alone; that is, to every 14 post offices in Great Britain there are 7 efficient telegraph offices, while in this country to every 14 post offices there are not more than 4 efficient telegraph offices, and considering the commercial offices alone there are over 5 to 14 post offices over the sea, and about 1 to 14 post offices here. This comparison of offices, however, significant as it is, does not do full justice to Englands' superior telegraphic facilities, because every post office and every post box is a place where a telegram may be deposited to be taken by the postal carriers to a telegraph office and transmitted, so that, including the railway offices, the telegraph facilities of Great Britain are somewhat more extensive than even those accorded to the mails.[1]

The real expansion of facilities from 1869 to 1899 is not disclosed by the figures of Table I. It appears to be five or six to a dozen fold, while in reality it is in all probability beyond fifty fold, because of the better location of offices and the utilization of the postal plant already referred to, and because the adoption of the quadruplex and multiplex and the increased rapidity of transmission have greatly multiplied the capacity of wires and instruments. One wire and one instrument to-day may be the equivalent in business capacity of 4, 6, 20, 40, or more wires and instruments in 1869.

The evidence of the success of public ownership in England is conclusive. In his report of November 13, 1880, p. 42, Postmaster General Maynard said:

"During my visit to the British post office I examined with much interest the system of telegraphy for several years past connected with the postal service. This method of correspondence is thought to have made a great advance since it was changed from the management of private corporations, responsible to nobody, hardly to public opinion, and placed under the control of the Government. The business has increased many fold, the cost of sending messages has been largely reduced, and the service is performed in localities it would never have reached under the pecuniary stimulus of private enterprise. At the same time it yields a margin of profit to the royal treasury. Is it not time for us to renew the inquiry whether it is wise for us to leave this important instrument of correspondence in charge of corporations whose primary object is gain to the managers and stockholders, and the convenience of the public secondary only?"

Arnold Morley says:

"The mainspring of the movement which led to the acquisition of the telegraph by the State was the public expectation that the post office would be able to provide for the benefit of the nation as a whole an improved service at a rate which would bring it within the reach of all classes of the community, and the post office can justly claim that this expectation has been fulfilled." [2]

Bronson Keeler says:

"The service is prompt, efficient, and accurate. There has never been even the slightest intimation that the telegraph is used for political purposes, or the slightest fear on the part of the people that their secrets are not safe with the Government."[3]

The only fault that even the Western Union has been able to find with the English postal telegraph is that at the start it could not handle all the business that came to it, the reason being that the reduction of rates and extension of lines increased the business even beyond the expectations of the postal authorities so that it required a few weeks to completely adjust the system to the new conditions. The complaint when understood is really an argument for public ownership.

Summing up, we find that for 27 years Great Britain permitted the telegraph to remain in private hands; that the companies combined to keep the rates up and to destroy any real attempt at competition; that the tariff was exorbitant, the service very poor, the lines confined to the most populous districts, the treatment of employees such as is usually accorded them by private corporations; that a few thoughtful men called attention to the existing abuses and advocated national ownership as the remedy; that the chambers of commerce and the press took up the matter and with the help of a leading statesman carried the measure against the powerful opposition of the companies and the inertia of those afflicted with the heart failure of extreme conservatism and public distrust; that the immediate results were:

1. A reduction in rates of one-third to one-half.

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[1] British Post-office Guide, Jan. 1, 1895, p. 437, sec. 22.
[2] Forty-first Rept. Eng. P. M. Gen., p. 33, July, 1895.
[3] Forum, Vol. IX, p. 457.

2. A vast increase of business—the work done by the telegraph doubling in the first year after the transfer.

3. A great extension of lines into the less populous districts so as to give the whole people the benefit of telegraphic communication.

4. Large additional facilities by opening more offices, locating offices more conveniently, and making every post office and post box a place where a telegram may be deposited to be taken to the nearest telegraph office for transmission.

5. A considerable economy by uniting the telegraph service with the mail service under a single control, avoiding useless duplications, using the same offices, the same collecting and delivery agencies, and often the same operatives for both services.

6. A marked improvement in the service, throwing complaint out of the steady occupation she had had so long—the aim of the post office being service—not dividends.

7. A decided gain to employees in pay, hours, tenure of office, etc.

8. Unprecedented advantages to the press for cheap and rapid transmission of news, at the same time freeing it from the pressure of a power that claimed the right to dictate the views and opinions it should express.

9. The development of business and strengthening of social ties, ties of kinship and friendship, through the growth of business and social correspondence.

10. The removal of a great antagonism and the cessation of the vexatious and costly conflict it had caused between the companies and the people.

Looking at the subsequent history of the English postal telegraph we find—

1. A further reduction of nearly one-half in the average cost of a message.

2. More than a tenfold increase of business in 25 years, while population increased but one-fourth—over 1,000 per cent telegraph growth to 25 per cent population increase.

3. A sixfold extension of lines and fiftyfold increase of facilities.

4. A steady policy of expanding and improving the service, adopting new inventions, putting underground hundreds of miles of wire that formerly ran over houses and streets, etc.

5. A systematic effort to elevate labor, resulting in a progressive amelioration of the condition of employees in respect to wages, hours, tenure, promotion, privileges, and perquisites.

6. A good profit to the Government (excluding interest on the water-logged capital cost) in spite of low rates, large extensions into thinly populated areas, advancing wages, heavy losses through carrying press dispatches below cost, competition of telephone companies in the best-paying part of the traffic, etc.

7. Satisfaction with the telegraph service even on the part of conservatives who objected to the change before it was made.

Comparing the English situation with our own, we find—

IN ENGLAND.	IN THE UNITED STATES.
Low rates.	High rates (twice as high).
Good service.	Poor service.
Extension of telegraph facilities to the masses.	Facilities only for the classes.
Rapid growth, 40 times as rapid as the growth of population and 4 times as fast as the growth of the letter mail.	Slow growth, less than one-sixth of the growth of the English system.
Progressive improvement of labor.	Progressive maltreatment of labor.
Harmonious, uninterrupted operation.	Big strikes.
Large popular use of the telegraph.	The telegraph an adjunct of speculation.
A management aiming solely at serving the people.	A management aiming solely at serving themselves.
Moderate salaries for leading officials.	Exorbitant salaries for leading officials.
No big fortunes from telegraph manipulation.	The telegraph a millionaire machine.
Universal satisfaction with the telegraph situation.	Universal discontent.
Public monopoly.	Private monopoly.

We do not need to imitate England's mistakes—in paying too much for old lines; in allowing the telephone to remain so largely in private hands; in serving the press below cost; in giving the railways a vast service every year for nothing; in leaving the telegraph debt to hang like a millstone around the neck of the department, instead of paying it off from the postal profits or other public funds; in charging new construction against current income—but we may well imitate her energetic adoption

of a needful reform, her economies, her progressive administration, her care for the welfare of labor, her public spirit in this matter of the telegraph.

Two farmers named J. B. and Uncle S. each planted his "taters" and melons in a low-down shady spot where the soil was very moist. The plants were small, slow of growth, stunted, altogether inferior, and the crop was bad, disagreeable to the taste, hard on the digestion, causing at times severe colic. J. B. concluded he'd leave the low, shady, watery earth and plant on higher ground, in a drier soil and in the light. So he planted his "taters" and melons and corn in the open, up on a sunny slope, and the crop has been fine ever since.

Old Uncle S.
Sez he, "I guess
I can play at that game myself," sez he.

CHAPTER XI.—WHAT CAN BE DONE WITH THE TELEGRAPH HERE.

FIVE PLANS FOR A POSTAL TELEGRAPH—THE TRUE PURPOSE AND THE BEST METHODS—THE AUTOMATIC, AUTOGRAPHIC, QUADRUPLEX, AND MULTIPLEX—COORDINATION WITH THE TELEPHONE—CIVIL-SERVICE RULES AND NONPARTISAN COMMISSIONS.

Section 6. What can be done with the telegraph here?

First, there is the plan of contracting with one or more private companies to connect the post offices with telegraph lines, supply the instruments and operators, and carry messages at low rates as a part of the postal service. This plan was advocated by Postmaster General Wanamaker with such persistence and ability that it has come to be called the Wanamaker plan. His idea was to begin by connecting all the free-delivery post offices and gradually extend the lines to all offices. A postal telegram could be deposited in any post office or post box, or in any telegraph office of the contracting company or companies. The charges would be 10 cents for 20 words for 300 miles or less, not over 25 cents for distances up to 1,500 miles, not over 50 cents for any distance, nor more than 1 cent a word for words beyond the first 20. Two cents on each telegram would go to the Government for its services in collecting and delivering the message and the rest would go to the telegraph company. New York capitalists were eager to contract with the Government on the Wanamaker basis or on the basis of a uniform 25-cent rate regardless of distance, whichever Congress though best, and they were willing to have the Postmaster General an ex officio member of their board of directors; also a member representing each political party to see that no unfair advantage should be taken.[1] The Western Union, however, did not wish that such a contract should be made with itself nor with anyone else, because it would greatly lower rates and would illustrate so clearly the benefits of a union of post and telegraph that a full Government system would be likely to follow in a few years.[2]

This plan avoids the objections usually urged against a public telegraph. It would not increase the Government patronage, nor require any public expenditure, nor limit private enterprise. And yet it would render the country an inestimable service by cheapening the telegraph and making it more accessible to the people.

Its disadvantages are that it still leaves the rates higher than need be in order to give the private capitalists the profit they demand, that although the business would be essentially a public one carried on in the post office and largely by means of its labor and capital, yet the profit would chiefly go to private parties; that it would extend the pernicious contract system, which is far more liable to abuse than the patronage; that it does not eliminate the antagonism of interest between the telegraph management and the public; that it does not diminish but largely increases the telegraph stock to be gambled with and manipulated; that it leaves the telegraph workers to the mercy of corporate greed, etc.

The limited plan is vastly better than the present system, but there are plans as far superior to it as it is to the existing service. Mr. Wanamaker clearly recognized that the plan he proposed was not the best per se, but he thought it immediately attainable whereas the better plans he feared were not.

The Bingham committee said to him:

"Why not let the Government furnish the wire and control the whole thing?

"Mr. WANAMAKER. That would be very much the best thing to do in my judgment. * * * We have everything but the wires and the poles and the machines.

"Mr. CRAIN. Why not furnish those?

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[1] Bingham hearings, Seymour's statement, p. 1, 2, et seq.

[2] See the full statement of the Wanamaker plan for a "Limited Postal Telegraph;" Bingham hearings, pp. 1-17; Wanamaker's argument, 1890, and report of Postmaster General, 1892.

"Mr. WANAMAKER. The reason is because there seems to be an impression that you do not want to make an appropriation." [1]

Senator Edmunds's words to the Hill committee in 1884 are full of wisdom:

"It seems to me, for the best interests of the country, that any appliance with which its welfare is so intimately connected as is the instantaneous transmission of intelligence, should be subject to no censorship, to no corporate will, to no question of how it is going to affect stocks, or the standing of corporations, or of persons, but it should be free to all men as the post office is, and, like the post office, subject to no espionage. It is essential, I believe, at this time, to the interests of the United States, and growing more and more so, in connection with great social questions, and the aggregations of vast sums of money under corporate power, that this Government telegraph, on the constitutional principle stated, should be undertaken independently, and subject to no contracts or arrangements with parties." [2]

Second, the Government can lease lines from private companies and operate them by the postal force. With a good civil service this would be better than the first plan, since it accomplishes the same extension of facilities and still greater reduction of rates (the corporate profit on operation would be eliminated and the complete union of postal and telegraph services would give rise to additional economies) and obviates all the objections to the first plan except two—it would still pay out a considerable rental profit which had better stay with the people, and it would retain the contract method to some extent. Nothing but public ownership under a good civil service will accomplish the full measure of benefit and give the people the full profit of the undertaking.

Third, the Government may buy existing lines and connect them with the post-office system as was done in England. One trouble with this plan is that existing lines are in large part of very inferior quality. Another trouble is that the people would probably have to pay five or six or more times the value of the telegraph—they would be requested to pay cash for 90 millions or more of water—they would be expected to purchase their own patronage—to buy the franchise they loaned the companies for five years as clearly appears from the terms of the law of 1866 already stated in Chapter I,[3] and to buy it at an inflated valuation produced by unjust charges imposed upon the very public to be saddled with the said inflation. What a wonderful thing is "business"! W persuades P's agent to grant him a privilege belonging to P. W then largely overcharges P for services performed under said grant, and thus lifts the market value of the privilege, that is, other parties would be willing to buy the privilege from W at a price proportioned to the amount of overcharges the privilege enables its holder to collect from P, so that when P desires to reclaim the privilege he finds it necessary to pay an enormous price because he has to buy the valuable right to overcharge himself—the greater the overcharges have been the more unjustly he has been treated, the more he must pay to persuade W to give up his privilege of unjustly treating him—he must pay the market value of the audacity and unscrupulousness of W.

Senator Edmunds told the Hill committee that if the Government could buy the lines at the cost of replacement, that was the thing to do. If not, the Nation should build its own lines—start the public lines and then the Western Union would sell at reasonable rates, and the Nation could buy such lines as suited its purposes.[4] In a speech on the floor of the Senate January 20, 1883, Senator Edmunds said:

"What the United States, in regard to its postal affairs and the welfare of its people, needs more than anything else is the construction of a postal telegraph, beginning

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[1] Bingham hearings, 1890, p. 16.

[2] Jan. 14, 1884, Hill committee, S. Rept. 577, 48-1, Edmunds, Pt. II, p. 3 et seq.; Voice, May 23, 1895, p. 2.

[3] The law permitted companies organized in any State to extend their lines throughout the United States on condition that the Federal Government should have the right to buy the lines, property and effects of said companies at an appraised value. This clearly indicates the intent to buy at the actual value of the lines and instruments. The Government did not need nor want to buy any State franchise, nor did it wish to provide for buying back the right it was then giving at a value as large as inflation might choose to make it. Without any contract at all the Federal Government had the right to take the telegraph lines on full payment including the State and national franchise—it has always this right under the law of eminent domain—one of the chief objects of making the contract constituted by the act of 1866 when accepted (as it was) by the companies, was to obtain better terms for the Government, if it should wish to purchase, than the law of eminent domain would give it. The Government gave the telegraph companies a national franchise free of charge, and in consideration therefor the companies agreed to allow the Government to buy their lines, instruments and other property it might wish to make use of at their actual value. If this were not the meaning, if the intent was that the Government should have the right to buy out the companies, paying appraised value of franchise and all, there was no sense in putting the condition in the compact, for the Government had that right without any contract. There is no doubt, however, that in case of purchase the Western Union would make strenuous efforts to secure a heavy overpayment whatever standard of valuation might be adopted, and there is only too much reason to fear that they would succeed. It is not probable that Uncle Sam will be able to buy out the Union at reasonable rates unless he first brings the managers to their senses by means of Government competition on the great traffic lines.

[4] S. Rept. 577, Pt. II, p. 9.

moderately between great points in the country and all intermediate points, and then extending it, just as we have the mail system, as the needs of the community and fair economy would require, until every post office should have, or be within the reach of, a postal telegraph.

"But I beg the stock operators in New York not to suppose that I, for one, am in favor of the United States buying out any telegraph company anywhere. I am in favor of the United States building its own postal telegraph, and managing it in its own way, and leaving the gentlemen who are engaged in private pursuits to pursue their operations in their own way as private pursuits.

"We introduced into the postal system not long ago a provision for carrying merchandise, but we did not think it necessary to buy out the operations of the Adams Express Co., or the Southern Express Co., or the Union Express Co., or the United States Express Co., and so on, although what we did very seriously diminished their profits, and impaired their business. Everything that the United States does, operates in that way upon the interests of its private citizens—everything except the appropriation of money directly."

Senator John Sherman, of Ohio, made the following argument in favor of a Government postal telegraph. He said:

"I should rather, also, in this connection consider one other subject of infinitely greater importance than even this proposition (to reduce postage), and that is whether the time has not arrived in this country, when the Government should assume to convey intelligence by electricity—not the management of the present telegraph lines, but when we should transmit through our post offices and our post roads, communications by electricity, by wires constructed by the Government itself. The Government of the United States might duplicate all the wires and all the means of transportation by electricity for about $20,000,000 or $25,000,000.

"If, therefore, we wish to do an actual good to our people, if we wish to confer upon them an enormous benefit, we should assume that which we have a right to assume as a part of the postal service of the country, the transmission of intelligence by electricity. In that way, by the expenditure of probably $15,000,000 or $20,000,000, we would save to the people of the United States $10,000,000 a year, and increase our revenue. This has been done by other countries situated in that connection no better than ourselves."

In 1888 the Committee on Commerce said:[1]

"1. That the time has arrived when the Government should construct and operate a postal telegraph system as a branch of its postal service.

"2. That the service will undoubtedly be self-supporting.

"3. That the Government has the right to build and operate telegraph lines under the jurisdiction of its Post Office Department.

"4. That public opinion will not permit, and good faith and justice do not require, the purchase by the Government of the property and franchise of the Western Union Telegraph Co."

Many more citations could be made to the same effect, but these will serve to indicate how strong is the feeling against the purchase of existing lines at the exorbitant values put upon them by the holders. If the Government should announce its intention to purchase, it is probable that stocks would rise in consequence as they did in England and the people might have to buy a great deal more fictitious value than now exists in the telegraph balloon. This might possibly be avoided by giving the Postmaster General authority to buy at his discretion naming no time, and then appointing trustworthy Postmaster Generals who should buy through secret agents when stocks were low and so gradually acquire control of the lines. I say "possibly" because it is very doubtful if such a plan would work with the telegraph, because a majority of the stock is in the hands of very rich men who do not care to sell. Moreover, it would be known that the Government was watching for an opportunity to buy and this might keep stocks up for a considerable period. Finally Wall Street would make a powerful effort to control the appointment of the Postmaster General, or to make a deal with him anyhow, and the temptation they could offer would be very great. It is safer for the Government to build its lines and keep its accounts in the daylight, as Senator Edmunds proposes, and if, during the process, existing companies offer to sell useful lines at the cost of duplication, then let us buy them. Or the Government may have the lines valued by competent engineers and then offer to buy at the structural value plus 10 or 15 per cent on account of the plants being "going concerns," giving notice at the same time that if the offer is not accepted within a limited period, it will begin to build national telegraph lines on its own account. The Nation ought not to pay for rattletrap lines or paper capital, but it is only fair to establish the new service with as

[1] H. Rept. 955, 50-1, p. 5.

little loss to individuals as is possible under methods consistent with justice to the public.

The Government has the power to reduce the telegraph properties to a fair value by enacting a law regulating rates. Or it may declare the national telegraph franchise void for violation of conditions. Or it may begin competition little by little, or set a time in the future at which it will establish competing lines if existing lines are not offered at reasonable prices. In any of these ways the Government can obtain the wires at cost, and by some of the methods stated the change of value in stocks would be gradual, spread over a number of years, and no large or sudden loss would fall upon any one individual.

Fourth, the Government could ask private parties to build the lines or supply the money for building them, on condition that said parties should receive a specified interest on their capital, that all profits beyond said interest should go toward paying off the principal, and that when it should be entirely paid the lines should revert to the Government free of debt—a sort of building loan association plan. It might be agreed that the operation of the lines during the period of payment by instalments should be in the hands of the builders, or of the Government, or of trustees for both. This is the plan by which Springfield secured an electric-light plant, and it is better than the last, for it avoids water and gets a new system of the best make. It requires no public debt, but the people lose on the interest, which is 6 or 7 per cent in such cases usually instead of the 3 per cent for which the Government can borrow, and the 0 per cent for which it can issue greenbacks or tax inheritances, etc., as proposed under the following head.

Fifth, the nation may build a telegraph system for itself, as already suggested in some of the citations opposing purchases of telegraphic water. It may first build lines connecting the great centers of population and use the revenue thus obtained year by year to extend the wires to the out districts, or it may establish a comprehensive plant at the start as the British Government did. It may raise the needful funds by taxation (a progressive income tax or an inhertance tax on big fortunes for example),[1] or by bonds, or by issuing greenbacks, or by opening postal savings banks and investing part of the money deposited by the people in a telegraph plant. Either plan is good, except the bond issue, but perhaps it is most just that the money for public improvement should be raised by graded taxation that takes very little from those of small wealth and a great deal from those of large wealth, and by the issue of greenbacks in payment for materials and labor—the latter plan of course to be carefully used in reference to the public need for currency.

The purpose to be accomplished is the transmission of intelligence to all parts of the country, with the utmost practicable speed, at a minimum cost, and in manner and form appropriate to the occasion. The means of accomplishing this purpose are the ordinary telegraph, the quadruplex, the multiplex, the automatic, the telautograph, wireless telegraphy, the telephone, the pneumatic tube, etc.—each has its place in a well-arranged system.

The automatic will be of the utmost service especially in dealing with through traffic between large cities. The machine telegraph will send from 1,000 to 3,000 words per minute (as against 15 to 45 words on the circuits used by the Western Union), at a cost of 3 to 10 cents per hundred words (instead of a cost of $1.40 per hundred as claimed by the Western Union as the average of their present methods). The business man of the future will dictate his letters to a stenographer; she will write them on a machine in the shape of a typewriter that will perforate the words in Morse characters, printing one or more duplicates in Roman characters at the same time if desired for retention in the office or other use; she will mail the perforated letter stamped and marked for the telegraph department of the post office, or she will send the office boy with it directly to a postal telegraph office; when the perforated message reaches the telegraph it will be fed into the automatic transmitter and dispatched, at the rate of 1,000 or more words per minute, to the telegraph office nearest the destination of the message; the receiving machine will print the message on a strip or on a letter sheet, as may be wished,

[1] It would be no more than fair to take a good slice of the millions the telegraph managers have absorbed from the people in the shape of tolls on the people's franchise. As fast as the millionaires die let the nation claim a good share of their wealth for public improvements, rebuilding the city slums, educating the poor, etc. A tax of 1 per cent on estates of $10,000 to $25,000 at the death of the owner, 2 per cent on estates from $25,000 to $50,000, 4 per cent from $50,000 to $75,000, 6 per cent from $75,000 to $100,000, 10 per cent from $100,000 to $200,000, 20 per cent from $200,000 to $500,000, 30 per cent from $500,000 to $1,000,000, 40 per cent from $1,000,000 to $10,000,000, 50 per cent on all over $10,000,000, or any similar system, would yield a large revenue by a method that would not press upon anyone, but would help to check the concentration of wealth and yet would be perfectly just as restoring to the people a portion of the wealth taken from them by the present unrighteous system of business. The disposal of property to take effect after death is a privilege created by society for the social well-being, and must yield to such modifications as may from time to time be necessary to secure a better diffusion of wealth or other object related to the public good. (For other suggestions on progressive taxation see City for the People, p. 521.)

in clear Morse characters that can be read by anyone after a few days' trial; the printed message will be mailed to the addressee, or sent to him by special delivery if so ordered, or read off to him through the telephone; and the whole thing will cost but a trifle more than carriage by mail bag and steam car. A person who can not afford the services of a stenographer can have a perforator and operate it himself, or he can go to a telegraph office and write his message and it will be perforated there by the clerks, or he can write his message and mail it marked for the telegraph, and it will be perforated in the post office and sent to its destination.

This is not a dream, but a simple statement of what would result from the general use of a system well known among experts as having already proved its power to do all I have stated.[1]

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[1] The Anderson automatic has transmitted and recorded in perfectly legible characters 3,000 words per minute between New York and Washington, 351 miles, over a compound copper and steel wire of much smaller carrying capacity than the No. 4 copper wire which would be used in constructing the new system, according to the plans of the inventor. It has carried 800 words per minute over a similar compound 2-ohm wire, 1,027 miles, from New York to Chicago. And it has carried from Jersey City to Philadelphia 1,500 words per minute, 90 miles, over a single small iron wire of a resistance of 25 ohms per mile, or more than 20 times the resistance of a No. 4 copper wire. Over an experimental line 8,000 words per minute have been recorded by this system. By the hand method the highest speed that an expert telegrapher can attain is about 45 words a minute, and ordinarily 15 to 25 words per minute is all that can be expected. With the quadruplex and four operators at each end of the line, 60 to 80 words a minute may be sent over one wire, but the average is about 50 words per minute, so that the Anderson automatic makes one wire the equivalent of 40 to 100 of the ordinary Morse circuits in use by the Western Union, or 10 to 30 of its quadruplexed wires.

Mr. W. E. Athearn, a very high authority, formerly chief electrician of the Baltimore & Ohio Telegraph Co., thoroughly tested the Anderson system and says: "With a 1-ohm-per-mile resistance hard-drawn copper wire, strung upon well-set, substantial poles, the tests justify the belief that much more than 1,000 words per minute could be reliably telegraphed in all weathers."

In respect to cost of transmission with the Anderson automatic Mr. Athearn says: "A careful approximate estimate of the cost of telegraphing, complete, 1,000 words from New York to Chicago, including perforating, transmitting, copying by typewriter at the receiving station, with liberal allowances for cost of labor, stationery, chemicals, etc., is about, but rather under, 50 cents. The present rates of the Western Union Telegraph Co. for telegraphing a business message of 1,000 words from New York to Chicago are upward of $30."

Mr. P. B. Delany, the great inventor of the multiplex, says: "At Philadelphia, on Monday, the 22d of February, 1892, I saw 1,500 words per minute received from Jersey City in perfectly plain Morse characters by the Anderson System of Machine Telegraphy. The line used was an iron wire with a resistance of about 25 ohms to the mile, or equivalent to double the length of an ordinary telegraph circuit. Judging from the character of the work 2,000 words per minute might have been received if the transmitting machine at Jersey City had been geared up to that speed. There will be no difficulty whatever in working at a speed of 1,000 words a minute between New York and Chicago."

Mr. D. H. Bates, once of the Western Union management, and afterwards president and general manager of the Baltimore & Ohio Telegraph Co., examined the system in 1890 at the request of the Postmaster General. He says: "The effect of the arrangement is to insure great speed, great accuracy and legibility of the record at the receiving station, absence of all errors except those inherent in the line itself, and the presence of line faults may be instantly detected. Two large copper wires could accommodate by means of the machine telegraph, all that 8 or 10 similar wires could handle by means of the quadruplex, the work being as well done and with a saving of one-third in the number of operators and clerks."

Mr. F. N. Gisborne, electrician and general superintendent of the Government telegraph lines of the Dominion of Canada, told the Royal Society of Canada in May, 1891, that the Anderson system had accomplished in a perfectly practical way the astonishing feat of telegraphing 3,000 words a minute over a single wire 351 miles long, and 800 words a minute over a circuit of 1,027 miles in a heavy rain storm. Wherefore two wires operated by the Anderson system were proved to have a capacity more than equal to 20 wires operated by the quadruplex system in general use by the American companies (the Western Union is supposed to have quadruplexed about 75,000 miles of its wire) which represent 80 ordinary Morse telegraph circuits and require 160 skilled operators at the terminals, and 20 workers to attend the repeaters at halfway stations between New York and Chicago. Mr. Gisborne also said it was clear that a hundred words could be telegraphed 1,000 miles for 25 cents and yet allow a large profit to the telegraph companies. The decrease in the cost of line and its maintenance by the substitution of the Anderson system for present methods would be enormous, to say nothing of the far smaller number of operators and instruments required.

The Montreal Gazette of June 13, 1891, commenting on Mr. Gisborne's address said that he had shown how recent improvements in automatic telegraphy made it possible to compete successfully with the postal service for the carriage of letters, thus emphasizing the frequently expressed opinion that the time is ripe for the complete combination of the two services in the hands of the postal authorities.

The method of operation is simple. The message is perforated on a strip of paper, which is put into the transmitter and passes under metal points. At each perforation these points pass through the paper and close the circuit for a length of time corresponding to the length of the perforation. At the receiving end the closing of the circuit makes a Prussian-blue stain on a moving ribbon or sheet chemically prepared for the purpose.

The perforating machine is as simple and efficient as an ordinary typewriter and can be operated with the same ease and speed (1,800 to 2,000 words per hour).

The page and line recorder prints the message on a letter sheet about 10 words to the line, and is a great improvement over the paper ribbons for recording long messages, letters or news reports. So says Mr. Athearn; and Mr. Bates says: "The page and line recorder marks a long step forward, and its use removes one of the chief obstacles heretofore barring the way to full success in autotelegraphic transmission."

The business men's composing machine enables any person after a little practice to perforate a message for telegraphing as quickly as it could be written with a pen or typewriter (a perfect copy of the message for the office file being simultaneously printed in Roman characters). The use of this composer would considerably lessen the cost of telegraphing and would shorten the time required to set a message underway, the message being ready for the automatic transmitter the moment it is written and stamped, thus avoiding even an instant's delay. The reading of the message and counting of the words by the operator, taking the money, etc., uses up many instants with our system. Then the transmission is 50 to 100 times more rapid that that in general use to-day, and at the other end the attendant does not have to write out the message, but sends it at once as it is printed by the machine, if it is a quick-delivery message, or talks it through the telephone directly to the addressee.

It is not probable that love letters will be sent by telegraph; but they form a very small part of the mails, I presume, for lovers contrive, as a rule, to keep close enough together to communicate without the aid of the post office as much of the time as possible. Some social and political letters also will court the seclusion of the impenetrable envelope, unless they are urgent enough for the use of cipher. Bulky documents, rolls of manuscript, newspapers, books, and parcels will continue to go by mail with letters in respect to which time is not of importance. But the great mass of social and business letters will travel by wire instead of by rail. It will save a day between New York and Chicago, and a week between New York and San Francisco.

For the sending of money orders and other messages, in which the transmission of the handwriting of the sender is important, the telautograph should be made available. It would be useful also for sending diagrams, pictures, drawings of criminals, etc., by telegraph.

For the convenience of persons far apart who wish to converse with each other directly, long-distance telephones should be systematically distributed over the country. It is often desirable to come to an understanding about some matter that

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Where the traffic is large the automatic effects a great saving in cost of construction as well as in cost of operation. A single line of hard-drawn copper wire No. 4 with the automatic is more than able to do the work of 10 wires of the best quadruplex system (300,000 words or 10,000 messages of 30 words in 8 hours), yet the cost of the single copper line is less than half the cost of a good 10-wire galvanized-iron quadruplex outfit. The repairs and battery expenses of the automatic line are little if any more than a tenth of the corresponding maintenance expenses of the 10-wire quadruplex. The 10-wire quadruplex needs 80 first-class operators; and on a long line, like that from New York to Chicago, at least five repeaters would be required at Buffalo—85 operators; the equivalent automatic line would need 2 operators, 2 helpers, and 20 perforators (if the messages all came unprepared— so far as they were prepared in the offices of the senders the need for perforators at the telegraph office would cease), 4 to 22 workers against 85 workers with the quadruplex, to handle the same traffic in each case. With an eight-hour shift for the workers the cost of transmitting business under consideration would be about 6 cents per message of 30 words by quadruplex, and about 1 cent per message of 30 words by automatic, or one-half cent a message if the perforating were done by the sender.

The number of letters passing daily between New York and Chicago is said to be about 40,000, and the telegrams 8,000. If letters were telegraphed at a low rate between these points a vast number of missives from surrounding regions would cluster to them to save a day in transit, and the total might soon be nearer 100,000 than 40,000. Suppose, however, that in each 24 hours only 7,000 letters were to be telegraphed, averaging 100 words each, and 8,000 averaging 200 words each. A careful estimate based on considerable practical experience with the Anderson Automatic shows that the cost of transmission of the 800 million words of traffic per year would be about $300,000, or less than 4 cents per 100 words including labor, materials, repairs, and interest on the actual investment. Wherefore it appears that if a 5-cent telegraph stamp were added to a hundred-word letter alongside of the ordinary 2-cent postage stamp the 7 cents would more than pay for handling in the mails and for transmission by telegraph between the two great centers nearest the origin and destination of the letter. As the 2-cent postage pays double the present cost of handling letters (Postmaster General's Rept. 1892, p. 51), and the automatic transmission figures less than 4 cents, it is clear that 5 cents would cover the total actual cost, mail service and all, between New York and Chicago. It would not fully pay for transmission from New York to San Francisco; it would more than pay for such transmission between Boston and New York, Boston and Philadelphia, New York and Philadelphia, New York and Washington, New York and Chicago, Washington and Chicago, etc., making the average trunk-line transmission less than 5 cents for the entire country. If the messages were perforated by the sender and the automatic record sent to the addressee without copying into Roman characters, the total cost of transmission per 100 words would be less than half of 5 cents. As the automatic was extended, and the postal telephone and multiplex netted the country more and more, messages would go to and from the automatic trunk terminals by these means instead of via the mail bag. The strategic point, however, is the automatic trunk line for telegraphing letters long distances instead of sending them by mail. That is the thing of all others that the post office should aim to do at once.

A business of 800 million words per annum could be transacted on two No. 4 wires running considerably below their capacity—estimating the capacity at the most moderate figure suggested by the experiments, viz., 800 to 1,000 words a minute. It may be interesting to state that it is estimated the transmission of the same traffic by the Western Union quadruplex would cost about 18 or 20 cents per 100 words—actual cost, I mean, including interest on the real investment. The special telegraph messenger service is not included in any of these estimates—the Western Union says that costs 2 cents a message. (Bingham hearings, Green, p. 60.)

A full account of the Anderson system with detailed data of cost of construction and operation will be found in a brochure entitled "Machine Telegraphy," by W. L. Craig, M. B. Brown, printer, 49-57 Park Place, New York, 1895. The data of pp. 28-29 allow interest on the real investment, while those of p. 27 are made up on the ordinary private-corporation plan with large dividends on watered stock. Receiving copyists and rent are also included in pp. 26 and 27, but not in the estimate of p. 28. I have included copyists but not rent either in figuring the automatic or the Western Union cost. There would be substantially no addition for rent in a postal system, and even if allowed for at private rates it would amount to less than half a mill per 100 words automatic. The book figures on an 8-hour day for employees and allows $50 to $80 a month wages per employee. Its estimates of the cost of operating the quadruplex and the cost of construction of the copper and the iron quadruplex lines are all too high according to other engineering authorities and the testimony before congressional committees already cited—in the above statement I have given the corrected data in these respects. The letters and reports of Mr. Athearn, Delaney, D. H. Craig, and F. N. Gisborne may be found in the same book.

Since writing the above I have received Senate Document 291, May 26, 1896, containing the testimony of P. B. Delaney before the Butler Committee on Post Offices and Post Roads, Fifty-fourth Congress, first session, May 13 and 20, 1896. The great inventor with charming modesty and open-mindedness says nothing about his own services to the science of telegraphy, but urges most powerfully the claims of the automatic which is chiefly the work of others.

He says in substance that with plenty of wires a single short message can be sent by hand about as quickly as by the machine system, but "if the message is a long one, or if there are a thousand messages to transmit, it might take two days to get them off by hand, whereas, if there are a sufficient number of perforators, the whole lot could be transmitted in a few minutes, the machine system affording the same

needs discussion and argument, and at a distance it may require weeks or months of correspondence to do so, whereas a few moments' conversation might adjust the whole difficulty.

Every large town should be provided with the long-distance telephone and the telautograph; and in settled regions, where there are no large towns, the country should be divided into districts of not more than fifty miles square, in the central portion of each of which some postal telegraph office should have the long phone and the telautograph, so that few miles' journey at the most would enable any citizen to have the benefit of these great utilities.

If A in Boston wished to talk with X in Cincinnati about selling X a lot of shoes or buying X's building in Boston he would drop X a telegraph letter asking for an interview and naming a time, hour, and minute, or he would go to the long-distance telephone in Boston and ask the Cincinnati office to send out and get X, and the bargain could be talked out on the telephone and moulded into shape with an ease and certainty that make the telephone far superior to the telegraph for ordinary business requiring consultation and adjustment.

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capacity as 70 to 170 circuits work by the present Morse system * * * for the great bulk of telegraphic correspondence the hand method is inadequate, slow, and expensive. * * * The highest average of transmission over a single wire by the quadruplex was about 50 words a minute. Now it is practicable to telegraph 2,500 words a minute between Washington and New York, and 1,000 words a minute between New York and Chicago, while the telephone carries speech 1,500 miles. * * * Last October (1895) over an actual line having but 130 pounds of copper to the mile (Philadelphia to Harrisburg and return), 216 miles, 940 words a minute were plainly recorded, the current used being but 120 volts. The trial was made over the lines of the Pennsylvania Railroad Co., from the Broad Street station, and was conducted in the presence of a board of well-known electrica lexperts. With this system 8,000 words a minute have been recorded over an experimental line, which shows the possibilities of the latest developments in machine telegraphy."

The inventor gave the committee an estimate on the construction and operation of an automatic line from New York to Chicago as follows:

Construction per mile, three-wire line.

35 poles, 30 feet, at $4	$140.00
Setting poles, at $1.50	52.50
Total for poles	192.50
Cross-arms, pins, and insulators, at 55 cents	19.25
2 copper wires, 850 pounds each per mile, at 15 cents per pound	255.00
1 iron wire, 600 pounds per mile	35.00
Stringing 3 wires, $7 per mile	21.00
Incidentals	27.25
Per mile, 2 copper and 1 iron wire	550.00
1,000 miles	550,000.00
Complete equipment, apparatus, furnishing, etc	50,000.00
Total	600,000.00

The vast difference between this sort of construction and Western Union lines will be appreciated when you know that the Western Union uses little copper, and that the iron wire it uses weighs about 130 pounds to the mile. The line described by Mr. Delany would be much more expensive than the lines considered in Chapter III, but not so much more costly, I believe, as the inventor's figures would indicate. Twelve men can set from 24 to 80 poles a day ("Telegraph Construction," by J. C. Douglass, p. 362), according to soil and method and size of hole. Fifty cents each for setting should be a sufficient allowance for actual cost, and contractors are eager for the work at $1 apiece. For the cost of poles themselves, the Western Union told the Census Bureau that its poles cost $1 each. The Western Union has contracts with many railroads that relieve it of freight rates; but this was not the case with the construction described in Chapter III, note 13, where the figures show that the entire cost of poles could not have exceeded $2 each, although they were hauled long distances—$2 per hole laid at the poles is what the telegraph builder figures in the Blair hearings, Vol. I, p. 146, and he says his estimate is high. The estimate takes copper wire at 15 cents a pound, but it is quoted at that in ordinary purchases by retailers from wholesalers—28 cents retail selling price, 45 per cent off wholesale price to retail dealer in ordinary-sized purchase of a few hundred pounds—larger buyers get a 13-cent rate, and a purchase of 1,600,000 pounds ought to be made at 11 or 12 cents—a year ago even small purchases could be made at that rate. The iron is figured right, but the stringing is to high—$5 a mile of wire is ample (see figures in Blair 1, p. 147, deducting the cost of setting poles).

Passing from the construction account with the impression that it is too high, we come to the cost of operation. Calculating at the minimum average of 800 words per minute, or 1,600 for the two wires, Mr. Delany's data place the cost per message of 70 words from New York to Chicago at 4½ cents, including interest on his construction account and every expense but postage, which ought not to be over 1 cent. If the sender does his own perforating and the message is sent to the addressee in Morse characters, the cost of transmission would be a trifle over 1½ cents per message of 70 words, or 2½ cents a hundred, not including postage. This is not probably below the truth, for the tendency of the witness was to make his estimates of operation high as well as his estimates of construction—a tendency plainly manifest in his giving the perforators a speed of but 15 words a minute, which is far within their practical capacity.

In the Electrical Engineer for September 4, 1895, there is an estimate of cost by Delany, which runs a little lower than the one he gave the Butler committee in May, 1896, viz, 2.6 cents per message of 50 words from New York to Chicago, including interest and omitting postage. This agrees substantially with Mr. Athearn's data. The article last referred to says that between New York and Philadelphia a single wire with 300 pounds of copper to the mile will carry 3,000 words a minute, and the automatic will record them in dots and dashes as sharp as an engraving. To do this by hand would take 38 wires worked quadruplex, or 152 circuits at nearly 20 words a minute, which every telegrapher will admit is too high an average for quadruplex circuits. Over an iron wire, 350 pounds to the mile, which gives 60 words a minute quadruplex, the automatic will carry 2,000 words a minute between New York and Philadelphia.

For communication between different points in the same town or city the telephone has marked advantages. It would be a good plan for the municipality to own its telephone system [1] under Federal regulations and supervision—decentralized units in federation is the true plan wherever practicable—local self-government to the greatest possible degree consistent with effective cooperation of all the parts for the accomplishment of the purpose of the whole—that is the principle on which our institutions are founded, and a very wise one it is—liberty and union welded together.[2]

If under the laws of its State a town or city were denied the privilege of establishing an adequate municipal telephone system, or if, having the privilege, it neglected to use it, the Post Office Department should fill the gap by extending the Federal lines so as to afford a proper local service under public management. In country districts it might seem best that the local telephone service should be, not only subject to postal regulation, but an integral part of the national postal system—not a local plant locally owned and federated with the national plant, but a part of the national plant. The reasons are that greater economy will be thus secured, and a much more extensive rural service. The Federal policy would be the same with the telephone as it has been with the extension of postal facilities by mail, and lines would be built by the Nation in many a country district that could not build a system of its own. We should have a telephone station at every country post office, and every farmhouse could be connected with neighboring villages, towns, and cities, and enjoy the benefits of instant communication over a wide area at a trifling annual charge. Such a telephone system would be of greater use to farmers and country folk generally than all the rest of the postal and telegraph system. A vast amount of new business would be created by such an enterprise, the incomes of postmasters in towns and villages throughout the country would be considerably increased, millions of people would be able to transact with ease and swiftness a great deal of business that requires long journeys and consumes much time, and would be able also to do much business and enjoy much social intercourse from which they are now entirely cut off.

While it is true that the decentralization of municipal units in a well federated system of telephone service is an admirable plan—perhaps the best plan, under present conditions at least—yet it is equally true that decentralization must not be allowed to degenerate into competition. There are few enterprises in which the bad results of competition are more apparent than in the telephone service. Mr. Edmunds, president of the Northern Society of Electrical Engineers in Great Britain, put the matter very clearly when he said:

"Competition in such a matter as telephony must inevitably result in absorption, or in public inconvenience. When in one district there are rival telephone systems, the subscriber has to pay for both if he is to communicate with all the people he wishes. A case in point occurred in Manchester, where 500 subscribers to the Mutual Co. had to become subscribers to the National Co. also." [3]

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[1] Some of the best telephone systems in the world are run on this plan. See, for example, the account in Chapter IX of Trondhjem, where the municipality owns the local phone, while the State owns the long-distance lines.

[2] This principle is recognized to a considerable extent in the post office, and it would be better if it were still more fully observed. If each postmaster were appointed by local authority (judge, mayor, or selectmen) the Federal patronage would lose its terrors even without any civil-service reform, and the addition to the power of any local authority would be insignificant—a power that is dangerous when concentrated in the hands of a single individual becomes innocuous, or even beneficent when diffused over the whole country and dividing among 70,000 appointing authorities, every one of which is under the immediate eye of the people the appointee is to serve. The local appointing powers would be of various shades of political sentiment, and the administration at Washington would no longer be able to use postal plums to pay for partisan service or to secure partisan success. If good civil-service rules were added to this, and original appointments were to be made in each case from a list of five or ten persons (some of them from the neighborhood or as near it as may be) who had passed the examinations prescribed by the Federal authorities for postal aspirants, it is probable that a large increase in efficiency and economy would result at the same time that the spoils system would be driven out of the post office. The postmaster would be a trained expert, a worker in the office with a tenure during good behavior and a prospect of promotion, instead of a merchant or outside business man with a term of four years, little acquainted with post office work, employing clerks for as little money as he can, and putting as much as possible of the salary and commissions in his own pocket, in many cases not because he does any postal work to speak of, but because he is a good Democrat or a good Republican. The fourth-class post offices are still under the contract system, and are not yet within the protection of a real public ownership. Let us give the pay to those who do the work. Establish local appointments from tested lists. Create postal districts, each with a Federal superintendent who shall have charge of all the offices in his district, like the superintendent of a railway division, with power of dismissal for cause (to be judicially ascertained at the request of the person dismissed), and power of promotion for merit to superior positions in the railway mail service, etc., and power to place the name of a meritorious worker on the list for appointment in another city than his own and recommend his efficiency to the local postmaster for a clerkship or to the local appointing power for the postmastership. The district system is common in Germany and other European countries. It is not wise to have but a single bureau of reference for a continental business system. The more the numberless details of such a system are referred to persons on the spot for prompt action the better for the service, and the greater likelihood not only of quickness but of decision with a thorough comprehension of the circumstances Sweden has reconstructed her postal service on the district plan since Postmaster General Wanamaker brought the matter before Congress. (See Postmaster General's Report, Dec., 1892, p. 33 et seq.)

[3] Electrical Review, Dec. 20, 1895, p. 782.

In the same discussion Mr. Chrehugh is reported as saying that—

"He was a subscriber to the New Telephone Co., and although the service over their own system was a thoroughly satisfactory one, he found great difficulty when wishing to speak to a subscriber on the National Co.'s system, which seemed to proceed from jealousy between the companies. He continually found that subscribers were 'engaged,' and it frequently took an hour to speak to a subscriber on the rival system."

Mr. Browell said that for six months they had rendered it almost impossible to use their telephones when speaking over the National Co.'s system. He paid for the use of the National, but practically could not use it.

Telephonic competition compels the subscriber to pay the annual charges in each of two or more systems, and renders a service far inferior to that of a united system—double the cost, and a service but little better than half of that which a single system covering the whole area would afford—with three rival systems, treble the cost, and a service but little better than a third of the service a single system would render.

For communication between railway offices, where many brief messages traverse the wires and the officers wish to talk back and forth with the least possible intervention of machinery, the hand method of telegraphy will be likely to continue in use, also in postal stations where the business is small and can easily be attended to by one of the postal employees—a country postmaster or his daughter will soon learn to transmit if you offer them one or two cents per message for the service, and the receipt may be automatic even with the ordinary instruments. The lines may be duplexed or quadruplexed, or, better still, multiplexed, so that a single wire will do the work of 8, 12, or 20 wires simplex, or 2, 3, or 5 wires quadruplex.[1]

Just what combination of telegraph and telephone, automatic, autographic, multiplex, pneumatic tubes, etc., will best accomplish the purpose of maximum service at reasonable cost, experience alone can determine. It is safe to begin with automatic lines between all large cities, and cover the rest of the country with the hand telegraph, making all post offices and post boxes places of deposit for telegrams. The interstate and interurban telephone should also net the continent, in close cooperation with local municipal telephones wherever the city. town, or country will establish such service. Over a large part of the system no separate wires for the telephone would be needed, since Van Rysselbergh's simultaneous telegraph and telephone system, extensively used on the Government lines in Belgium, makes it possible to use the same wires for telegraphing and telephoning at the same time.

To connect the free-delivery post offices with a first-class multiple system would cost, it is said, about five to seven millions, and to cover the entire country about twenty to twenty-five millions. To establish the automatic in place of the multiple for direct communication between large cities, to add the long phone on the Rysselbergh plan, and the Gray telautograph by districts as above suggested, would not very greatly increase the cost—the whole a mere nothing for a nation that spends $3,500,000,000 on luxuries every year; nothing for a Government that can issue greenbacks to pay for the work, and so give back to the people a few of the millions the creditor classes

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[1] The duplex system sends two messages in opposite directions over one wire at the same time. The quadruplex sends four messages, two in each direction, over one wire at the same time. The multiplex sends 2, 4, 6, 8, 10, 12, or even 20 messages over one wire at same time. The Patten multiplex has been thoroughly tested between New York and Philadelphia, working 12 circuits with a single wire. The whole 12 messages can be sent in the same direction at the same time, or 6 one way and 6 the other, or any part of the 12 can be sent one way and the rest the other way, or part of the circuits may be worked as through lines between New York and Philadelphia and the rest sent off to outlying towns, by connecting the main wire with the said towns. This system enables one wire to do the work of 12 ordinary lines or three quadruplex lines, and so permits a large economy in construction and maintenance. It operates by the hand method, so that its rapidity of transmission is not great, but it serves to connect, at trifling cost, numbers of small offices where the traffic can go on a Morse circuit by hand without crowding. The main wire can be used for through service also, and if a long message is to be sent it can be divided into parts and each part sent by a different operator at the same time, thereby multiplying the rapidity of transmission. The Patten system is synchronous, i. e., it depends on concurrent movements of machinery at both ends of the line which make and break the connections of the keys and receivers in rapid succession, thus giving the line to each operator by a series of connections. The breaks in the current from any key are so infinitesimal as to have no effect on its operation- the practical result being the same as if each operator had a line to himself. Delany's multiplex, extensively used in England, is also synchronous, and sends six or eight messages over one wire. Delany's multiplex dates from 1882, preceding Patten, but the latter has introduced valuable improvements. The Meyer system, 1873, preceded both, and though inferior to both, it has given good results on the Government lines of France, proving itself to have a capacity of 110 messages per hour.

There is another sort of multiplex, of which the Harmonic of Prof. Gray is an example. It depends on the property sonorous bodies possess of responding to vibrations corresponding to their own pitch. If a vibrating reed is used to transmit a series of electrical impulses over the wire, and a second reed is placed at the other end of the line tuned to the same pitch as the first reed, the second reed when connected with the wire will be set in vibration and give out a continuous tone like the first reed. By means of a Morse key this tone in both reeds may be broken up into the letters of a message. If two or more reeds of different pitch are at each end of the line, each receiving reed will select its own tone and no other. By the use of a Morse key to each pair of reeds, it thus becomes possible to transmit as many messages as there are pairs of reeds over the same wire at the same time.

Bingham hearings, Seymour's statement, p. 8. Mr. Seymour and other New York capitalists were ready to put in the Patten system on the Wanamaker rates with a No. 10 copper wire, estimating the cost as above.

have taken from them by the contraction of the currency; nothing for a Government that can enact an inheritance law under which the death of any one of the leading telegraph magnates would endow the nation with funds enough to build the entire postal telegraph system and leave a considerable surplus for the extension to suburban districts of the automatic, autographic, etc., facilities as fast as experience suggested its advisability.

One thing must never be forgotten—in whatever way the telegraph becomes a part of the post office it must come in under civil-service rules—no other method will fulfill the conditions of real public ownership.

A nonpartisan commission—a commission composed of members from each political party and from each section of the country—might be given a veto upon the action of the postal administration and a general supervision of its conduct, just as a board of trustees holds the rein on the management of a university. This would secure the enforcement of civil-service rules, and prevent the partisan use of power, without hampering the executive energy of the department. And if the veto were wrongly used at any time Congress would remain to overrule the error.

CHAPTER XII.—ADVANTAGES OF NATIONAL OWNERSHIP.

ECONOMY—LOW RATES—UNIFORM TARIFF—INCREASED FACILITIES—GROWTH OF BUSINESS—DEVELOPMENT OF INTERCOURSE AND ACCOMPANYING ADVANCE OF EDUCATION—BETTER AND MORE PROGRESSIVE SERVICE—COORDINATION WITH POST AND TELEPHONE—IMPROVED CONDITION OF EMPLOYEES—EMANCIPATION OF THE PRESS—A BLOW TO GAMBLING, DISCRIMINATION, AND POLITICAL CORRUPTION—A STEP TOWARD FAIRER DISTRIBUTION OF WEALTH—A MILITARY ADVANTAGE—AN AID TO CIVIL-SERVICE REFORM—A HELP TO SOCIAL COHESION—A STEP TOWARD FULLER COOPERATION AND PARTNERSHIP.

Section 7. The advantages of the proposed plan are many and important.

I. *Economy.*—The construction and maintenance of the lines could be placed in charge of the Engineer Corps of the Army.[1] We educate at West Point a splendid body of men, full of public spirit, possessed of the latest scientific knowledge, and quite free from the taint of commercialism. They would do the work excellently, and save the Government the immense sums that telegraph builders ask for their supervision and profit. The rank and file of the Army might also supply a part of the ordinary labor required for construction and maintenance. Such labor would cost the Government practically nothing, since it has to pay the Army anyway. Our Army has built and maintained many telegraph lines, and Uncle Sam might as well keep the boys busy—better for him, better for them.

Superintendence of the office work could be confided to the postal officers, with very little addition to the force; and the routine labor in many offices could be performed by the present employees. It is said that in three-fourths of the post offices no additional attendant would be needed.[2] In England the regular postal staff does the telegraphing in all the small offices, and in the provincial service about one-half the telegraphists are simply the postal clerks. England has still many small post offices not yet supplied with the telegraph; if they were, the number of postal-clerk telegraphists would amount to about three-fourths of the total telegraphic staff.[3]

In Belgium, where the telegraph department manages the whole telephone service as well as the telegraph proper, nearly one-half the total staff consists of the regular employees of the post office and other public departments.[4]

A further saving of large amount would be made in rentals and the cost of light and heat. The Western Union says its rents amount to $585,000, about 1 cent a message on the total business.[5] Union with the post office will for the most part provide the

[1] Senator Edmunds's idea, S. Rep. 577, Part II, p. 6. If the Government start with a few trunk lines between the principal cities, the private telegraph will soon be offered for sale at any price obtainable; the Government could then buy the old lines at their actual value for the purposes of the new system, and then a law declaring the postal control of the telegraph to be exclusive would put the matter in proper shape.

[2] Wanamaker's Arg., p. 198.

[3] Forty-first Rept. Eng. Postmaster General, 1895, pp. 3, 6, 7, 8, 27. Early in the history of the English postal telegraph it was found that the entire cost of 2,700 offices where the postmasters provided the service was only one-fourth as much as the cost of the 600 offices in which the department employed a separate telegraphic staff. Postmaster General Creswell's Rept., 1872, p. 33.

[4] Rapport presenté aux Chambres Législatives par M. le Ministre des Chemins de Fer, Postes, Télégraphes, Téléphones et Marine. Partie C, p. 6. Bruxelles, 1895.

[5] Bingham Hearings, p. 60.

people's telegraph with room, light, and heat without additional expense.[1] The stamp system and uniform rates would effect an economy in bookkeeping, and in the time of the public also. And the half million a year paid by the Government for telegraphic service would pay for much more and better service under the postal system.[2] Combination of the telegraph and the post office is an example of the same sort of economy that helps so largely to make the fortunes of the trusts.[3]

The Government would not have to pay dividends on watered stock, which according to Mr. Hubbard amounts to 8 cents on a message, or nearly the entire price of a message in several countries of Europe.[4] There would be no dividends even on the real investment nor interest either, unless the Government should be so foolish as to borrow, and even then it could borrow at much lower interest than a private telegraph company would be able to. There would be no rents to pay for leased lines, and no money paid by the people to cover the cost of free telegraphing by rich and influential favorites of the companies.

Costs of litigation,[5] counsel fees, lobby expenses, and big salaries would be saved. One of the attorneys for the Bell Telephone Co., I happen to know about, gets $30 per per day for being in his office four hours a day ready for telephone consultation if his services should be needed. The rest of the day is his own, and his telephone salary is not the end of his income by a good deal. He is an estimable man, but he has no right to $10,000 a year for potential service, while honest, hard-working, skillful mechanics are getting only $600 to $1,200 for a solid year's labor. And yet this $10,000 salary is but a trifle in the official lists of the great telegraph and telephone monopolies. All this overpayment would cease with national ownership.

Besides all this there would be the economies resulting from the substitution of cheaper and better methods of telegraphy and from the vast increase of business sure to follow the introduction of low rates. The Government would aim to work on a tariff just enough above actual cost to supply a reasonable fund for extensions and improvements, without the necessity of asking Congress for an appropriation every year tor two, a necessity which has greatly retarded the development of our postal system and constitutes a serious defect in any public service. Whatever profits were realized would go not to Wall Street's millionaires but to the people, in the shape either of an improved service or of cash turned into the Treasury.

Finally, there would be no building of useless lines nor wastes of competitive telegraphy; the money abstracted from the people by the discriminative use of the telegraph for speculative purposes would remain in their pockets, and the cheapening of communication would bring the whole people closer together, give them a better understanding of the markets, aid their foresight, and steady, develop, and economize the business transactions of the continent.

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[1] Wanamaker's Arg., pp. 73, 165; Postmaster General Howe, Rept. of November, 1882, H. Rept. 114, pp. 44, 50, 52, in which last the committee estimated the yearly saving in salaries, light, fuel, and rent by union with the post office at $1,500,000, at the very lowest calculation, on a business of 33,000,000 messages, with 4,200 offices; with a business of 200,000,000 messages and 40,000 offices (as the situation would soon stand if Uncle Sam were at the helm, with the automatic, etc., as proposed) the absolute saving by union with the post office would not be less than 15,000,000 a year on the telegraph alone, to say nothing of the telephone.

[2] I. T. U. Hearings, pp. 29, 30.

[3] Speaking of the former competition with the B. & O. Co., Dr. Green said to the Bingham Committee, p. 65: "Competition is an expensive luxury. It involves largely increased expenses. For instance, we had to pay high prices to get into the exchanges with that sharp competition. We had to pay a high rental in every hotel, which, without such competition, would have been only too glad to have a telegraph office there for nothing. So it cuts both ways," diminishing receipts and increasing expenses.

Mr. Hubbard, who puts many things clearly and well, states this matter of the union of services as follows: "Now here are two great pieces of machinery going on, both for the same purpose, the transmission of intelligence. If these two are united you must necessarily make a great reduction in the expenses of the telegraph system. You have the same offices, and by having the same offices that you now have, you greatly increase the facilities of business. The present telegraph system is a railroad system not a postal system. Its offices all through the country are at railroad stations, generally speaking a little outside the limits of the smaller cities and towns, not easily reached by the people, whereas a post office is at the spot where it will accommodate the greatest number of people.

"Now, it may be safely said that any business will increase in proportion to the facilities that are afforded to the business. The greater the facilities, the greater the business. The lower the rates, also, the greater the business. By the use of the same offices, and many of the same men, and finally by the use of the stamp system, a very great expense will be saved to the country. Formerly every letter that was sent through the post office had a waybill attached to it showing where it came from, where it was bound to, and what the charges upon that letter were. The consequence was that each letter cost a great deal to the department. Now a letter is dropped in, and no account is taken of it.

"Now every telegram passes through from 10 to 15 different hands. Copies of it are made at the receiving and the delivery stations. And this very necessity of payment of moneys, of accounting and checking and comparing the whole, is a very large expense to the telegraph department, which will be saved by the union of the two services." I. T. U. Hearings, 1894, pp. 17, 18.

[4] Quoted in Wanamaker's Argument, p. 223.

[5] President Green told the Bingham Committee, 1890, p. 65, that the Western Union "paid last year for damage claims $58,570, and for legal expenses, chiefly to defend the damage claims, $108,338."

In view of all these potent elements of economy, the statement of Senator Blair of New Hampshire that national ownership of the telegraph and the telephone would be worth $100,000,000 a year to the people of the United States [1] does not seem so unreasonable as it would to one who had not thought out the far-reaching consequences of the change.

Prof. Morse offered to sell his invention to the Government for $100,000.[2] If Congress had only had the wisdom to buy it and establish a national system from the start, what a vast saving would have resulted in respect to investment and rates, stations and fixtures, costly investigations, frauds, hindrance of business, and loss of progress through high rates and absence of proper facilities, etc.—hundreds of millions of dollars lost to the people for lack of expending a few thousands on a public telegraph half a century ago.

2. *Low rates.*—With the proposed national system, it would be possible to establish very low uniform rates. The preceding discussion discloses the fact that in dealing with ordinary messages 1 cent per word, with a minimum charge of 10 cents, would yield a considerable profit; 10 cents for 20 words, and 2 words for 1 cent after the first 20, would probably pay the operating cost of transmitting a message by telegraph from any point to any point in the system, and if the nation owned the lines free of debt a rate of that sort could probably be made without trespassing upon taxes.[3] For special delivery by messenger outside the free-delivery system, 5 cents per message; the Western Union says 2 cents, but it pays very poorly for the labor involved. If the street railways were municipalized and ordered to carry postmen and telegraph messengers free, a very cheap and swift delivery could be organized. For transmitting a dispatch from the receiving station to the addressee by telephone, 5 cents a message; the same for receiving a message by telephone and giving it to the telegraph. For a letter to go by mail via the nearest automatic trunk line, 2 cents postage (or 1 cent when letter postage is put by Congress where it belongs) plus a 10-cent telegraph rate for each 100 words; half rates if the perforating is done by the sender and the message is to be given to the addressee as recorded by the receiving machine without copying. Half rates in such case would lead to a great economy of industrial force by stimulating business men to do their own perforating and to learn to read the Morse alphabet, a very easy art that ought to be taught in the public schools, and will be when the new system make the telegraph the people's business. For transmitting by telegraph from the receiving terminal of the automatic trunk line to the addressee's town, half the ordinary telegraph rates.[4] For special messenger or telephone delivery of such a telegraph letter, 2 cents per hundred words, with a minimum charge of 5 cents.

Local telephone charges ought not to be more than $10 to $30 a year; interurban telephone more, in proportion to the number and distance of the towns wired together. For local telephone conversations, transient custom, 5 cents for 5 minutes and 1 cent a minute afterward; for long-distance conversations perhaps three to five times as much. For the use of the telautograph, maybe two and a half times the ordinary rates, or 25 cents for twenty words, would be right. We have nothing like the data on which to base a judgment in respect to the telautograph and the long-distance telephone that we have in the case of the telegraph and the telephone local, but we think the prices named by way of suggestion are sufficiently high.

The reader who has in mind what has been said in previous parts of this discussion about the rates that have proved successful in Europe, the 10-cent rate made by the Western Union in some cases, the tariff accepted by New York capitalists during the Wanamaker investigation as the basis of large investments in a private plant with all the disadvantages of tremendous competition, the profit-sharing account of the Chicago and Milwaukee Company, disclosing an actual total cost per message of about 2½ cents, the evidence set forth of the astonishing cheapness of transmission with the perfected automatic (less than 4 cents per 100 words on a 1,000-mile circuit), the economies by union with the post office, the diminishing cost per message as the volume of business swells by reason of lowered rates, etc., will have no doubt that

[1] Senator Blair to the Henderson Committee on Post Offices and Post Roads, May 4, 1894. The Senator said the telephone was even more important than the telegraph, and that the question of national ownership of these means of communication was the "greatest matter before Congress except the tariff." He said there should be a telephone connected with every post office on a 5 or 10 cent charge.

[2] H. Rep. 32, 40-3, p. 5.

[3] Italy has introduced the automatic with such effect in cheapening the transmission of intelligence by telegraph that the Government contemplates the reduction of the rate to 5 cents per telegram. (Journal of Franklin Institute, vol. clx, 1895, p. 476.) This is merely one more fact in confirmation of the overwhelming evidence already given. See note 9 in chapter xi.

[4] The charge for transmission all the way by telegraph via the automatic trunk lines would be 35 cents per 100 words. In the composite system of England, the British post office estimates the cost of long messages, averaging 120 words each, to be 31½ cents per 100 words. (41st Rep. Postmaster General, 1895, pp. 10, 37.) The system we have outlined would have a considerably greater efficiency than the one in use in England.

the telegraph rates above specified are quite high enough, and that the universal use of the automatic would render possible a lower tariff than the one here suggested. Better methods and the vast increase of business sure to follow low rates would certainly make a uniform rate of 10 cents per minimum message, as above suggested, an easy possibility at no distant day after the telegraph became a postal function.[1]

3. *A simple uniform tariff* will be a benefit in itself, not merely by reason of its ecomomic value, but also because every influence tending to equalize the advantages of city and country helps to counteract the overgrowth of cities and the undue congestion of population. Uniform rates wherever practicable are the just rates, for distance is not a fault, and no penalty should be attached to it. It is for the welfare of all that the country should be peopled as well as the city, and the cost entailed by distance should be equally borne by all so far as its distribution is practicable. Uniform rates, moreover, assist in educating the people in the value of simplicity and equality—ideas that are destined to play an important part in the new order of things that is evolving out of the chaos in which we dwell to-day.

4. *Increased facilities.*—The extension of lines, improvement of methods, union of telegraph, telephone, and post office, etc., under the plan proposed would multiply the facilities of rapid communication many fold. The single expedient of constituting all post offices and post boxes places of deposit for postal telegrams would quadruple the avenues of approach to the telegraph at the very start.

5. *Growth of communication.*—Low rates and large facilities naturally lead to fuller use. It has been so with our postal service.[2] We have seen that it was so with the telegraph in Europe, and it will be so here.[3] A large increase is specially to be expected in communications of a social nature and in those pertaining to legitimate business;[4] and such correspondence is so vitally related to the progress of a nation that its volume is found to constitute a valuable test of the life, energy, civilization, and progressive movement of the people. To appreciate the force of this statement

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[1] The ordinary rate proposed is about one-fourth and upward of Western Union charges, say 30 or 31 cents average per W. U. message (of an average length of 17 words, according to President Green)—over 8 cents profit by their confession; 7 cents more is said, by those well qualified to judge, to be really profit in the shape of interest on leased lines, construction expenses, and other sums improperly placed in the operation account (Gardiner G. Hubbard, S. Rept. 577, part 2, p. 60). This leaves 16 cents actual present cost per message, or not above 18 cents including interest and all fixed charges. Doubling the business would reduce the cost per message to about 12 cents (S. Rept. 577, part 2, pp. 52, 60; S. Mis. Doc. 79, 42-3, p. 13, calculating the effect of increased business on the unit cost from the Western Union's own figures in respect to its own experience and that of Europe)—12 cents with the present inferior methods. Combination with the post office and use of the automatic will easily bring the cost below the 10-cent mark, and the increase of business will not stop with the doubling of present traffic by any means.

Without reference to automatic telegraphy, Mr. Bell told the Henderson committee in 1894 that in his opinion "the rates could be reduced, under Government ownership, fully two-thirds, and yet be self-sustaining;" and Mr. Loud, a most pertinacious opponent of the postal telegraph and defender of the existing order, said, "I do not doubt that at all." (I. T. U. Hearings, pp. 12-13.) Conservative authorities even affirm that the postal telegraph could carry at rates five-sixths less than the present tariff. (Wanamaker's Arg., p. 9, citing with approval the statement of a conservative financial journal of New York.) The Hill Committee on Post Offices and Post Roads reported in 1884 that under a postal telegraph "in many cases the reduction would be to one-tenth of the Western Union charges." (S. Rept. 577, 48-1, p. 15.) The Chicago and Milwaukee independent profit sharers paid back 40 per cent on 5 cents a message, and still made 14 per cent on their investment, indicating a cost not over 2½ cents a message, while the Western Union had been charging 20 cents a message. (Bing. Thurber, p. 25; Wan. Arg., pp. 63, 69.) John Wanamaker, Victor Rosewater, Judge Clark, and others, who have given much study to the question, are of opinion that a uniform rate of 10 cents or even less would make the service self-supporting. (Arena, February, 1896, p. 410; Wan. Arg. 63; Bing. Rosewater, 4; Arena, vol. 5, p. 466; S. Doc. 205, 54-1, p. 50.) In Italy the Government is proposing to reduce its telegraph rates to 5 cents per message. (See note 13; Journal Franklin Institute, vol. cxl, p. 476, and December Arena, 1895, p. 57.) Judge Clark, of the Supreme Bench of North Carolina, says that experts in this country estimate that the enormous increase of business likely to result from very low rates would justify a 5-cent rate with the postal telegraph. (S. Doc. 205, 54-1, p. 50.)

[2] On page 10 of his argument on the limited post and telegraph Mr. Wanamaker says that the reduction of letter postage from 3 to 2 cents, and the introduction of penny correspondence in the shape of postal cards, were followed by enormous developments of postal business in spite of depression and panic in the commercial world.

In 1838-9 the English letter rates were: 2d. under 8 miles, 4d. under 15, 5d. under 20, 8d. under 80, 9d. under 120, 14d. under 500, and 1d. for each additional 100 miles. Foreign postage averaged 46½ cents on each letter.

Jan. 10, 1840, a uniform penny rate was established. The number of chargeable letters posted in England under the old rates was estimated by the Parliamentary Committee at 77,500,000, while the number posted under the penny rate was estimated at 204,334,676. (Rept. of U. S. Postmaster General, Dec. 2, 1843, p. 698 of the President's Message, 1843.)

[3] See ch. 1, note 6, pp. 256-7, and authorities there cited. Lowering the rates one-half doubles the business. See also Sen. Mis. 79, 42-3, p. 13; I. T. U. Hearings 18, 24, 59; Wan. Arg. 9, 10, 64, 223. "Make the telegraph the letter post and the increase will be thirtyfold, with the income fourfold greater than at present even with a rate 5-6 less than the present." Wan. Arg. 9, quoting with approval the words of a "conservative financial journal of New York."

[4] See Ch. I, note 6, and other authorities cited in the last note. In Europe two-thirds of the telegrams are on social matters; in this country only 8 per cent or less are social. Ours is a business and railroad system, while those abroad are postal systems. (Wan. Arg., p. 223). "When the Belgians reduced their prices for the transmission of postal telegrams to 10 cents, the number of business messages promptly increased over 200 per cent, and the number of social messages increased 1,000 per cent." (Wanamaker's words, p. 10 of his Argument, 1890.)

one needs but to note how closely the use of the mail accords with the varying degrees of civilization in different parts of the world.[1]

TABLE XV.—*Postal service per capita.*

	Average yearly number of letters and post cards mailed by each inhabitant.	Average yearly number of pieces of all sorts mailed by each inhabitant.	Total number of pieces handled by the post office per inhabitant per year.
Kongo	0.0016	0.0025	0.0047
Turkey	.3	.5	.6
Egypt	1.4	2.5	2.9
Russia	1.7	2.7	2.9
Spain	4.6	8.4	9.6
Great Britain	53	74.8	76.7
Germany	30	42	45
France	20	43	45
Belgium	20	52	56
Switzerland	34	49	60
Venezuela	.....	.....	2
Mexico	1.2	4—	4
United States	43	76	77.5
New Zealand	38	60.5	69.4
New South Wales	50	92	100
Western Australia	.....	.....	293
Philadelphia, U. S	314	439	561
Taking large areas, we have—			
Asia	.....	.....	.81
Africa	.....	.....	1.50
South America	5	7	8
Southern Europe (Spain, Portugal, Roumania, Bulgaria, Servia, Turkey, etc., except Italy, which stands at 16 per capita total)	3.33	6+	7—
Northwestern Europe (France, England, Germany, Switzerland, Austria, Norway, Sweden, Belgium, Denmark, Holland)	32	56	58

In Kongo it takes a thousand people to write one letter and read one newspaper per annum—365,000 people to write one letter and read one paper per day. Philadelphia writes an average of two letters a day for every grown person, and reads two newspapers or more. In Russia each family of five receives about a dozen pieces of mail per year; in New South Wales a family of five receives about 500 pieces a year.

It is easy to believe that Turkey is brutal when we know that she has less than half a letter and about a quarter of a newspaper a year for each inhabitant, or about one letter and one paper for each grown man in the country. It is not difficult to understand Spain's cruelty to Cuba when we know she has but 5 letters and 4 papers,

[1] In this study made in 1897 the figures for each country were taken as far as possible directly from reports issued by its Government. Where this was not possible we have used the postal statistics published by the International Bureau at Berne, Mulhall's Dictionary of Statistics, the Statesman's Year Book, Australian Handbook, the various encyclopedias, etc., such secondary evidence being checked by comparing the authorities. The first two sources of information are those chiefly used. It is probable that none of the figures are exactly correct. The complexity of the subject, the different methods of tabulating postal business in different countries, the neglect of the International Bureau to estimate populations each year anew, etc., tend to deprive the figures of precision. Nevertheless, they are sufficiently accurate for the present purpose. The tremendous contrasts shown in the table are not affected in any appreciable degree by the small coefficient of error attached to each specific calculation.

In countries showing considerable variation from year to year, up one year, down the next, the aim has been to adopt a conclusion representing the general trend of postal traffic for the last few years instead of accepting the specific figure for any one year. In this way a temporary depression of business in any nation is prevented from unduly affecting its relative standing. Where the figures for 1894 and 1895 agree with the results indicated by the general trend of business, as is usually the case, they have been adopted without modification. The data for large areas like Southern Europe, Northwestern Europe, etc., were obtained by adding the pieces mailed in each nation of the area and the pieces received from outside the area, as nearly as they could be estimated from the statistics of the international service, and dividing the sum by the total population of the area.

The number of pieces carried, transmitted, or "handled" is equal to the number mailed in the country plus the number received from abroad. For example, the number "handled" in Philadelphia (674,000,000 pieces) consists of the number mailed in the city (529,000,000 pieces) plus the number received from outside for delivery in the city (145,000,000). It must be remembered that the number of pieces handled by the postal system of a given area is not equal to the sum of the numbers handled by the post offices of the cities, districts, or nations composing the area. Suppose the post of A handles 1,000 pieces a day, 200 of which come from B, and the post of B handles 1,000 pieces, of which 210 come from A, then the united postal system of A and B does not handle 2,000 pieces a day, but only 1,590. In other words, the pieces mailed in one part of an area for delivery in another part of the same area are counted as handled at the place of mailing and again at the place of delivery when the business of each of the two places is considered by itself, but when we are dealing with the postal system embracing both places a piece mailed in one and delivered in the other counts only once. For this reason it is fairer, in comparing a large area with a small one, to use the numbers "mailed" rather than the numbers "handled."

books, packages, etc., per head per year, or 50 pieces a year for each family. The United States has 43 letters and 33 papers, etc., per head, or about 400 pieces a year for each family. And the people of Philadelphia send 2,200 pieces per family through the mails, and receive from outside the city 610 pieces to be delivered to each family in the city, making a total of 2,810 pieces received and sent per family. Compare Philadelphia with Turkey, England with Spain, Northwestern Europe with Southern Europe, Africa, and Asia, and the conclusion will be forced upon you that there is a vital relation between civilization and intercommunication, and intercommunication depends largely on facilities in the shape of low rates and abundant means of rapid transport and delivery.

Facilities for the growth of correspondence mean facilities for the growth of civilization.

6. *Education* of an invaluable sort will follow the change proposed—the education of simple method and equal treatment already spoken of, the education, intellectual and emotional, that accompanies an increase of social intercourse, and the education that is incident to dealing with large affairs. It educates a man to increase his responsibility and bring into fuller play his faculties of management, oversight, and performance by intrusting important business to his care; and a nation may be educated in the same way.

7. *Better service* will result. It will no longer be possible to put a message in the office and then get on a train and beat the lightning on a faultless wire. The automatic will greatly increase the accuracy of transmission. And the telephone linked to the post office and the telegraph will bring the world to each office and home. The Signal Service will be better cared for.[1] Fine facilities for sending money by telegraph will be afforded the people. Instead of little boys and young men and women whose wages are so low that they only take the employment as a makeshift till they can work into something better, there will be a permanent and skilful staff, not exhausted by overhours nor restless with discontent. Service will be the purpose of the management.

Mr. Hubbard says:

"The post office and the telegraph are both for the same purpose. Now, which renders the best service to the public, the post office or the telegraph? I think we shall all agree that it is the post office. It must be so, because it is conducted for the benefit of the public and not primarily for the benefit of stockholders." [2]

8. *Progressive administration.*—It will not be the policy of a national management to suppress or hold back inventions even if they do require a considerable new investment. Neither will the administration endeavor to depress wages and degrade labor. Telegraph wires will not be woven into a network of nuisances over our streets. Slender poles will not be loaded with 20 or 30 wires, to fall with every serious storm and disable the service. Progress will be the aim. Progress and dividends sometimes go together, and then a private company will move with eagerness; but progress and dividends are often opposed, as in the case of extending the lines into outlying districts, and then private enterprise sits back on its haunches as stubborn as a mule. The test of progress is not the size of the surplus above expenses, but the increase of beneficial use, the development of utility to the public. The postal telegraph across the sea has far outstripped our private system in this respect, as we have seen in former papers. The administration of the post office has ever shown a most progressive spirit. Look at the history of our own department; mounted messengers, stagecoaches, railway trains, steamboats, electric cars, and pneumatic tubes have been adopted one after the other to quicken the carriage of the mails; letter boxes in the offices, on the streets, in the houses, free delivery and collection, money-order system, registry system, special delivery, etc.; postal cards, stamped envelopes, stamped wrappers; exclusion of lottery tickets and demoralizing literature; ocean post offices, international mails, reduction of the rates of postage in the last 50 years from 25 cents and $1 to 2 cents and 1 cent, and development of service from 1¼ letters per capita to over 40 per capita, marked improvement in the condition of employees, a large advance in civil-service reform, a merit system of promotions from the lower grades up through the railway post offices to the highest places in post offices and in the department—all firmly established, and our Postmaster General constantly pushing new improvements, extension of the free delivery and the parcel post, adoption of 1-cent letter postage, the district system, with civil service for all postmasters as well as clerks, pensions and insurance for cases of sickness, old age, and death of employees, a better method of dealing with second-class matter, abolition of the contract plan wherever possible, establishment of postal savings banks, postal telegraph and telephone, etc.[3]

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[1] One of Hannibal Hamlin's reasons for advocating a postal telegraph was "for the sake of the Signal Service, which the Western Union does not properly serve." Cong. Globe, 42-2, p. 3554.

[2] I. T. U. Hearings, 1894, p. 17.

[3] See the reports of Wanamaker, 1892; Bissell, 1894; Wilson, 1895, etc., where all the measures mentioned above are strongly advocated.

All these advances have been made across the sea, and would have been here had the matter rested solely with the postal administration; but as Congress has to be consulted, and so many Members of that august body are too much engrossed with party politics and private business to acquaint themselves with the needs of the post office, or bestow the proper interest and enthusiasm upon it, the postal administration is sometimes compelled to spend considerable time and argument and reiteration in order to impress a new idea upon Congress with sufficient force to obtain an appropriation or other requisite enactment. It is only a question of time, however, in any case; the progressive spirit of the department is sure to conquer the inertia of Congress in the end. If the Postmaster General had a reasonable fund at his disposal every year for extensions and improvements, as he ought to have (and might have if railway mail pay were reduced to a reasonable figure and second-class mail paid its way) he would be able to inaugurate many valuable reforms without the delay occasioned by a voyage across the stormy sea of politics and private business interests. A private corporation can use with promptness whatever means and opportunities of advancement it possesses, but its means are limited and its desire is still more so, wherefore the most important advances accomplished and prospected by the post office would never be achieved by a private company. The means and opportunities of national enterprise are practically unlimited, and the desire of the postal management for progress has no relation to dividends, and is boundless as the opportunities of serving the public weal, wherefore advancement is sure to follow, though delays may now and then be occasioned until the people see that a greater number of really public-spirited men are elected to the national legislature.

9. *A postal telegraph will be a step toward bringing our institutions into more perfect harmony with the sentiment of the people.*—See Chapter I for the evidence of the overwhelming sentiment in favor of a national telegraph system. It is in the line of progress away from aristocracy, part of the great movement toward democracy.

10. *The union of telegraph and post is needed for the interests of the post* as well as for those of the telegraph. It will elevate the skill and competency of postal employees. When mails do not arrive on time, it will inform the public thronging the post office, not merely that the mail has not arrived, but when it will arrive. It will permit the employment of the telegraph in tracing a missent letter or package, rectifying an erroneous address, discovering the whereabouts of an absentee, etc. It will permit the more rapid extension of the free-delivery system by affording a larger basis for its sustenance. It will multiply manyfold the rapidity in transmitting letters across the continent.

The telegraph is naturally a part of the post office,[1] as much a part of it as the sewing machine is a part of a dressmaking establishment. Suppose the Government were in the clothing business (as it might have been to advantage during the war), and continued to sew the garments entirely by hand, leaving the sewing machine to private enterprise; it would be a charming situation for private enterprise, but not very delightful for the Government. With such advantages private enterprise would be apt to deprive the Government of the best part of its business in spite of its willingness to work for people at cost. The same thing has happened to some extent with the telegraph and telephone, and will happen to a far greater extent if they are allowed to continue in private control. If trunk lines for automatic transit were established by a private company, even at 25 cents per hundred words (a rate sufficient to pay a very large profit on a corporate investment, water and all), the post office would soon lose a considerable portion of its most valuable business, the letter mail between the large cities.[2]

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[1] Mr. Hubbard says: "The telegraph and the post office are two great pieces of machinery going on, both for the same purpose, the transmission of intelligence" (I. T. U., p. 17). Prof. Ely calls the telegraph the "logical completion of the post office" (Arena, Dec., 1895, p. 49). Cyrus W. Field says: "Why should not the two branches of what is really one service to the public be brought together in this country, as in other countries, and placed under one management. It would certainly be a great convenience to the people if every telegraph office were a post office and every post office a telegraph office." (N. A. Review, Mar., 1886.)

[2] Postmaster General Cave Johnson said: "Experience teaches that if individual enterprise is allowed to perform such portions of the business of the Government as it may find for its advantage, the Government will soon be left to perform unprofitable portions of it only, and must be driven to abandon it entirely or carry it on at a heavy tax upon the public treasury * * * I may further add that the department created under the Constitution and designed to exercise exclusive power for the transmission of intelligence must necessarily be superseded in much of its most important business if the telegraph be permitted to remain under the control of individuals." (Reps. of 1845 and 1846.)

Postmaster General Creswell said in 1872: "If the effects of rivalry between the telegraph and the mail upon the revenues of the post office have not been serious, it is due alone to the liberal management of the latter as compared with that of the companies, a management which since the invention of the telegraph has reduced the rates of postage from 25 to 3 cents and increasd tenfold the correspondence of the country." (Rep. 1872, pp. 22-3.)

One of Hannibal Hamlin's three great reasons for a postal telegraph was "for the sake of the post office system, which may at any time be depleted by a strong telegraph in private hands." (Cong. Globe, 42-2, p. 3554.)

In times of pestilence the telegraph will save the post office from embargo. A letter from Port Gibson, Miss., says:

"Whenever the yellow fever breaks out at any point, all cities and towns, and some counties, having communication with the infected districts at once declare a rigid quarantine. The effect of this is to cut off all communication between themselves and the outside world. Trains and boats are prevented from receiving or delivering the mails. Business men are unable to communicate by letter with their correspondents, and all are prevented from hearing from relatives and friends in the quarantined places, except by telegraph, whose rates prevent many from using the wires.[1]

The infection does not travel on an electric wire, and if the post office possessed the telegraph its business would go smoothly on in spite of the plague, instead of being brought to a dead standstill throughout the region of disaster at the very time when hearts are breaking for daily news and communication is of the utmost importance to alleviate the quarantine.

11. *Employees will be benefited* by passing from a régime of oppression to one of elevation; from low wages [2] and long hours to high wages and short hours; from a service almost hopeless of promotion to a service of almost limitless possibilities to the man of character, brain, and energy; from an employment in which they are regarded as so much machinery to be obtained at the lowest market rates and worked for all the profit there is in them to an employment in which their comfort and advancement are among the main objects of solicitude with the management; from a business in which they have no share to a business in which they are equal partners with all their fellow citizens; from serfdom to liberty and manhood. No more boycotting and blacklisting, no more denial of the rights of organization and petition.

Some of the consequences will be the lifting of thousands to a higher plane of living, the annihilation of strikes by uprooting the causes of them,[3] the improvement of the service as already stated under the seventh subhead of this section, etc.

12. *The press will be emancipated from the danger of an ever present potential tyranny* liable at any moment to transform itself into an active oppression.[4] Senate Report 242, 43–1, page 5, says:

"The operation of the postal-telegraph system would result in a speedy termination of this alliance [between the telegraph and news association and groups of favored papers], and will be a very important step toward the freedom of the press."

Senate Report 577, Forty-eighth Congress, first session, page 16, says:

"The bill [for a postal telegraph] will lessen the danger of a concealed censorship of news whereby it may be colored and distorted so as to subserve political purposes, to mislead public opinion as to the merits or demerits of men and measures, to pervert legislation, and to favor schemes of private gain."

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[1] Wan. Arg., p. 138.

[2] In the last congressional investigation, dated May 36, 1896, the great telegraph inventor, P. B. Delany, testified that the pay of American operators had fallen 40 per cent in the last 20 years; and he said that "while the British operator has had two increases of pay since 1881 his American brother has had four reductions, and to-day the British operator is better paid for the same amount of work and by his environment occupies a higher plane of comfort and contentment than the American operator. Good behavior and diligence in his duties warrant him a life position, from which the whim and caprice of no one can drive him. He is not an itinerant wandering from place to place looking for work and hired for a day or a week, to be again sent adrift, nor is he permitted to work overtime to the detriment of his health and the exclusion of another wage earner from his share. His increasing years of service are taken into account in various beneficial ways. He has his yearly vacation. He is not cut off in sickness, and, most important of all, he is not 'turned down' in old age, but is retired on a pension, proportioned to his years of service" (S. Doc. 291, 54–1, pp. 4, 6).

[3] Joseph Medill, the publisher of the Chicago Tribune, expressed the opinion to the Blair committee "that, with a postal telegraph, there would be no strikes any more than among the clerks in the Treasury or the officers of the Army. Government employees do not resign en masse. Their pay is good as a rule, and, anyway, they could not get it raised till Congress thought it right; and a strike would not be apt to hasten the achievement of their purposes, but would place them face to face with the limitless power of the United States. Instead of occupying a position of brave revolt against corporate oppression, impervious to petition, the strikers would place themselves in the position of deliberately departing from ready and hopeful redress by peaceful petition and discussion, to the very objectionable method of obstructing the public business, defying the people's government, and dictating terms to the nation."

The telegraph system would no longer be subject to such disasters as that so well described by the Hon. Wm. Roche, in the Ohio legislature, Jan. 29, 1885: "A convulsion of the trade and commerce of the entire country resulted, when, on the 19th of July, 1883, 12,000 operators left their posts after the flat refusal of the magnates to give audience to their representatives to state their case."

[4] We have seen in Chapter VI how rates were raised on papers that criticised the Western Union's president or advocated a postal telegraph too vigorously, how papers were ordered not to criticise news reports under penalty of loss of news facilities, etc. It is interesting to note that even the largest and most influential papers do not always escape persecution. In his speech in the House, March 1, 1884, the Hon. John A. Anderson, of Kansas, tells us that "the Chicago Inter-Ocean had the lease of a private wire from Washington to Chicago, and published Washington news every day. A few weeks since Senator Hill spoke for the postal telegraph. The Inter-Ocean published the speech verbatim. That evening word was sent to the Inter-Ocean that the lease was terminated. The manager of the Inter-Ocean said afterwards that their relations with the Western Union were still friendly, but he had to be, of course, in order to keep the general dispatches."

The press of the nation will not be forbidden to criticize the news, nor will any paper be excluded from equal participation in the benefits of the telegraph service—equal rates to all, special privileges to none. Moreover, the rates will be greatly reduced for all press dispatches, and papers will be able to buy the world's history every day for a fraction of what they pay now for imperfect and garbled reports.

As a result of national ownership in England, "the press rates have been reduced so low that every country paper can afford to print the latest telegraphic despatches as it goes to press, and a telegraph or telephone is at every country post office." [1]

13. *Discrimination will receive a serious blow.*—No more telegraph rebates of 20 or 40 or 50 per cent to favored individuals and corporations. No more telegraph blanks for legislators, politicians, and lobbyists. No more delaying B's dispatch until the rival message of C is sent. No more precedence for bucketshops and gamblers over honest business and Government dispatches.

14. *Gambling in telegraph stocks will cease*, speculators in wheat, corn, pork, copper, oil, and other products of industry will be unable to control the wires for their uses, or even secure a precedence over the lines, and the Louisiana Lottery and similar frauds will no longer find a refuge in the telegraph as they do at present. The post office has been taken away from the gamblers; it is time the telegraph were taken from them also. The telegraph in the hands of cunning men may be the means of abstracting millions of money from the producers of the country, and may even become a potent factor in the causation of panic and depression. On page 3 of this argument for a postal telegraph, Mr. Wanamaker says:

"The measureless body of producers, in order not to be manipulated and robbed by the speculators, need to be nearer the consumers; and the measureless body of consumers, in order not to be manipulated and robbed by the same speculators, need to be nearer to the producers."

Take the telegraph away from the speculators and give it to the producers and consumers, that they may come into the closest possible relations.

15. *Political corruption will lose an able contributor* when the telegraph ceases to belong to a private corporation. (See Chap. VII.)

16. *A postal telegraph will be a step toward a fairer distribution of wealth* and away from the congestion of power and wealth in the hands of a few unscrupulous men, which is one of the chief dangers threatening the future of the country. (See Chap. VIII.) On this ground alone the establishment of a national telegraph would be justified, were there no other reason in the case.

17. *The public safety demands a national telegraph*, not merely as a precaution against corruption, speculation, and panic, congestion of wealth and power, strikes, and duress of the press, but also as a military measure and a valuable addition to the police power of the Government—a means of strength in time of war, and a conservator of law and order by aiding in the capture of criminals and in the general enforcement of the law. We have already quoted the opinion of Mr. Scudamore that the postal telegraph "will strengthen the country from hostility from without, and the maintaining of law and order within the kingdom." Let us call attention here to the weighty words of the New York Public, cited in Wanamaker's argument, pages 206-207:

"The Government itself absolutely needs a telegraphic system for its own protection. This will not seem the language of exaggeration when it is considered that the ordinary enforcement of laws, the capture of offenders, the success of fiscal operations, the protection of the country against domestic insurrection and foreign invasion, have come to depend in these days upon the instant transmission of intelligence with certain and absolute secrecy. It may at any time come to pass that the private interests of those controlling a telegraph system shall require the nonenforcement of the law, the prevention or delay of a financial operation, or the partial success of a domestic outbreak or foreign inroad. It is nonsense to say that this can not happen. If Mr. Gould could suppress for a few hours or days, news of an outbreak on the Pacific coast, or of the capture of a hostile ironclad from Europe, he could make millions by it. The Government has no certainty that he would throw away millions. It has no certainty that its orders bearing on great financial operations may not be betrayed and its aims thwarted. When the Government was hunting for the Star Route offenders, how

[1] S. Doc. 205, 54-1, p. 50; Report of U. S. consul at Southampton, Consular Reports, vol. xlvii, No. 175, April, 1895, p. 564. The press rate in England averages 9 cents per 100 words. In this country it is at least 40 cents per 100; the electrician, P. B. Delany, says it is 50 cents per 100 (S. Doc. 291, May, 1896, p. 3).

The report last quoted contains the testimony of Mr. Bell, of the Typographical Union, May 20, 1896, in which he says: "The news of this country is controlled by two great press associations, and in any place in which either has a footing no new journal can be established and secure telegraphic news except on such terms as may be prescribed by the paper or papers that already occupy the field. In England, on the contrary, all papers are on an equal footing." The Typographical Union is fully alive to the benefits of a Government telegraph; in fact, labor and commerce in general very strongly favor the reform. Mr. Bell says: "In this movement of ours we are supported by all the organized bodies of workingmen in this country. We are a unit on this question" (p. 17).

many would have been caught if its dispatches had been secretly betrayed? An important witness happened to be a Government director of the Union Pacific Railroad, and it has always been a mysterious fact that the officers in search of him could never catch him."

18. *It will be a step toward civil-service reform.*—Every increase of public business brings us nearer to thorough civil-service reform, because it enhances the importance of that reform, impresses the need of it more strongly upon the people, and deepens their sentiment in its favor. This has been the experience of European cities and states. A good reason why they are ahead of us in civil-service management is because they are ahead of us in the public ownership of railroads, telegraphs, telephones, etc.

In the case of the telegraph there are special reasons to expect that Government control would carry with it an extension of the civil-service principle. In the opinion of Mr. Rosewater the postal telegraph "would be an entering wedge for the greatest possible success of the civil service." He says:

"It would bring into the postal service a large number of skilled operatives whose services could not be easily dispensed with. They would be divided in politics like every other class of citizens, their experience and trustworthiness would be of great moment, and their trustworthiness would be increased by the knowledge that they could not be displaced by partisan politics. This has been the experience in Great Britain, and would be the same here. Once get the postal service under Government control and the civil-service act, and you would soon be able to place all departments of the Government under the same system, and a large share of the public nuisance incident to office holding would be done away with, leaving the officers free to inquire into and learn their duties to their office and to the public."[1]

Prof. Ely says:

"One of the strongest arguments in favor of a postal telegraph is that such a telegraph would carry with it an improvement in our civil service. It would increase the number of offices in which civil-service rules would be applied, even according to existing law, and it would be an irresistible argument in favor of the extension and elevation of the civil service. Some want to have us wait until the civil service has been already improved, but the purchase of the telegraph lines would inevitably carry with it the improvement of the civil service."

The country would insist upon it. The acquisition of the telegraph lines by the nation would convert more people to civil-service reform in one day than all the speeches which have ever been delivered on the subject would win to this good cause in a year.[2]

The plan advocated in this paper includes the civil-service act as one of its essential terms, for without it we run the risk of having, for a time at least, boss ownership instead of public ownership of the telegraph. The recent extension of the civil-service act to 30,000 new positions argues well for the future of this great reform.[3] That such an order should have come from President Cleveland, who has not been noted for his absence of partisan feeling, indicates that the election of a man of thorough independence would probably complete the transformation of our service. Even without that, the work will be done by the piece, each President ordering a section into line at the end of his term when the delay of justice can no longer aid his own political purposes, but may, on the contrary, strengthen his successor. Or he may act before the end of his term and from less selfish motives; the main thing for the Nation is that he act.

19. *The public ownership of the telegraph will remove one of the antagonisms that weaken the cohesion of society and retard the development of civilization.*[4]

20. *It will be a step toward cooperation and partnership*, away from private monopoly, usurpations, and taxation without representation.[5]

Let us now see what the defendants have to say—that means the Western Union—for, as Mr. Bell said to the Senate Committee on Post Offices and Post Roads, May 20, 1896:

"The only persons who have ever put in an appearance in opposition to this measure have been the officers, attorneys, and agents of the telegraph companies. No representative of the people has ever opposed it.[6]

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[1] The Voice. Aug. 29, 1895, pp. 1, 8.

[2] The total number of positions that must now be filled from the classified civil-service lists is 85,100, out of a total of a little more than 200,000 positions in the national service, aside from the Army and Navy (1896).

[3] Arena, Dec., 1895, pp. 51-52. See further "Civil Service" in "City for the People" (1899).

[4] See Chap. VIII.

[5] See Chap. VIII and IX.

[6] See Doc. 291, 54-1, p. 18.

CHAPTER XIII.—THE DEFENDANT'S BRIEF.

OBJECTIONS AS TO COST—DEFICIT PREDICTED BY THE WESTERN UNION.

The defendant's pleas, so far as made in open court at least, fall into four divisions—financial, political, constitutional, and miscellaneous. We will first investigate the sources and general character of defendant's arguments and evidence, then we will state their several pleas as briefly as possible, and to save time and space will annex to each the plaintiff's replication.

House Report 114; Senate Report 577; the Bingham and the Blair hearings; the North American Review, volume 137, page 422; Senate Miscellany 86, 42–2, etc., contain large quantities of Western Union arguments and testimony, the spokesman being generally either the president of the company or an attorney. Several pamphlets against the postal telegraph have also been issued by the company, the earliest one that has come to my knowledge being in large part taken almost verbatim from a pamphlet previously published in England by Robert Grimston, chairman of the Electric & International Telegraph Co., which, before the transfer of the English telegraph to the Government, occupied a position in Great Britain somewhat like that of the Western Union in this country. The statements of the Western Union pamphlet are taken up in detail by the Washburn committee and shown to be a tissue of falsehood and misstatement.[1] To find the relation of offices, wires, etc., to population in 1868–9, the statistics of offices, wires, etc., were brought down to date, while the population of the United States was taken at thirty-one millions (the census of 1860) instead of thirty-nine or forty millions, which was estimated by statisticians to be the population corresponding to the date of offices, wires, messages, etc., an estimate proved by the following census to be nearly correct. The populations of European countries, on the other hand, were brought down to date, and in this way the pamphleteers made a favorable showing for the Western Union. In counting offices, they included all competing offices, though often adding substantially nothing to telegraph facilities, also railroad, hotel, branch offices, etc., while in Europe there were no competing offices, and the railroad and branch offices were to a large extent omitted—about 1,200 in France, and correspondingly in other countries.[2] In comparing rates the Western Union shortened the distances in Europe and enlarged them in this country.[3] Even the facts of geography must yield to the necessities of corporate logic. In dealing with Belgium the company copied from the British pamphlet a lot of statements which the Belgian Government had already in May, 1868, officially declared to be untrue and to contain "as many errors as words."[4]

In 1867 the Western Union said their average rate was 57 cents; in June, 1872, they said it had been reduced 50 per cent; and in December, 1872, they said it was 62 cents.[5] In early reports the company stated the average charge at 57 cents, and the average cost at 40 cents; in later reports the company state the average charge for the same years covered by the said early reports as $1.04, and the cost as 63 cents, in order to make it appear that they had reduced rates very much since the said early years.[6] The company seems to have a delicate feeling that the truth is too sacred to be used in corporation statements or testimony.

President Green told the Hill committee that the average press rate was 6½ cents per one hundred words, and then immediately proceeded to give the figures of the press business, which show an average press rate of over 30 cents per hundred words delivered, and $30 per hundred words sent.[7] President Orton's sworn evidence in court could not be made to agree with his testimony before the Washburn committee.[8]

Such are a few illustrations of the value of Western Union testimony, logic, and statistics. Others will be found scattered through these papers, and they may be found in bulk by any one who cares to examine the statements made by the company and its officers and attorneys. It is a painful subject, and we will leave it with one further illustration from the Blair report, 1885, Senate Committee on Education and Labor, Volume I, page 875. Dr. Norvin Green, president of the Western Union, has been telling the committee that rates are much higher in Europe than in America (using for his comparison international rates in Europe and inland rates here); the committee asks:

"Q. What is it that causes the great disparity between your rates and the rates charged between England and the continental countries?

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[1] H. Rept. 114, pp. 14–31.
[2] H. Rept. 114, pp. 15, 16.
[3] Id., 29–32.
[4] Id., 23.
[5] S. Mis. 79, 42–3
[6] See authorities cited in note 37, Ch. X.
[7] S. Rpt. 577, Pt. II, p. 23; see Ch. II of this discussion, note 1, pars. 4–6.
[8] H. Rpt. 114, p. 100.

"GREEN. I think a good deal of it grows out of the conducting of a commercial business by the Government and the conducting of the same business by individual enterprise.

"Q. Do you know of any other cause to which the difference can be attributed?

"GREEN. No, sir; salaries are much lower there than here. They pay much less for the service than we do.

"Q. Is the telegraph a source of revenue beyond expenses to the governments abroad?

"GREEN. I do not know of any government that has ever made any profit out of the telegraph. [Extensive knowledge.] The British post office system claim to be making about expenses, but they get large appropriations every year. They claim, however, that those appropriations are for the extension of the plant, the construction of new lines.

"Q. They must do much less business there than is done in this country in proportion?

"GREEN. No, sir; they do a larger business in proportion to the amount of wires they have than we do in proportion to our wires.

"Q. Then if they are doing a larger business with cheaper labor, and are receiving much higher prices than you receive, why should they not make money? [Did ever a reckless witness walk into a prettier trap?]

"GREEN. Well, I do not know why, but somehow governments never make any money out of anything. [See the big profits stated below.]

"Q. You state the fact as you understand it, but you do not feel called upon to account for it?

"GREEN. I do not feel called upon to account for it."

The objections urged by the defendant against the establishment of a national telegraph system are as follows:

1. "The cost of establishing a postal telegraph will be too great."

Yes, if we buy our lines at the value you place upon them as you wish us to do; but we are surprised that you should say it would cost too much. How could you be so thoughtless as to admit that your telegraph is not worth what you ask for it? Under the law of 1866 the United States has a right to buy the telegraph lines at their actual value. The country can afford to pay that; it can afford to pay more than that if necessary to prevent a continuance of the high rates and other evils of the present system. The United States can make greenbacks; it made several hundreds of millions of them during the war, to pay for cannon and armies, powder and shot, horses, provisions, and clothes; and they worked first-rate; business was better than it has been since they begun to burn up greenbacks instead of making them. Maybe it would pay to make a few greenbacks now and buy a telegraph; or we can open postal savings banks, and the people will deposit the needful money in a little while. The United States has a good deal of money; all that the telegraph millionaires possess belongs to it in case of need. As they depart (perhaps to regions where they can not take their money without danger of its melting), we will ask Uncle Sam to use a portion of what they leave behind them in remodeling the telegraph system. If we can get a good, wholesome, progressive inheritance tax law and Providence will serve extradition papers on one or two of our Wall Street multimillionaire speculators, we can pay cash down for a national telegraph and still leave the families of the wealth absorbers more means than ought to fall to any small number of persons.

2. "If the Government take the telegraph it will have a telegraph deficit; it will lose money, as it always does; 'governments never make any money out of anything.'"[1]

Let us see. Here is a table of average yearly postal profits as reported by the International Bureau of the Universal Postal Union for the decade. (Table made in 1896. See notes for later data.)

	Average postal profits per year.	Percentage of gross receipts.
Great Britain	$14,000,000	21
Germany	5,600,000	8
France	9,000,000	23
Belgium	1,300,000	40
Austria-Hungary	3,320,000	15
Switzerland	350,000	7
Spain	2,000,000	44
Italy	1,320,000	14
Holland	575,000	20
Denmark	32,000	2
Norway	26,000	3
Sweden	105,000	5
New Zealand	320,000	25

[1] The words of President Green, Blair hearings, vol. 1, p. 875. See above, p. 202.

This does not by any means exhaust the list of governments that make a profit out of the postal service, but it may be sufficient to show you what a mean spite facts have against the statements of your presidents. The truth is that as a rule governments make a good profit on public industries although the rates are low. Germany makes 1,500,000 marks a year out of the Government printing office, and 550,000,000 marks ($131,000,000) yearly profit on its public railways. New Zealand makes $2,000,000 a year on her public railways; Austria-Hungary makes a profit of 144,550,000 guilders ($57,822,200) a year on her State railways, or nearly 54 per cent of the gross receipts; Belgium clears 58,000,000 francs ($11,600,000) on her roads, etc. Italy cleared 13,360,000 lire ($2,670,000) on her post and telegraph in 1894, about half of it from the telegraph. Holland made a profit of 1,673,262 guilders ($669,200) on her post in the same year, Sweden 500,000 kroner ($135,000), and Russia 9,465,800 roubles ($4,732,000) on post and telegraph, etc. German statistics put the average yearly profit of the imperial post and telegraph in the last decade at 28,000,000 marks. Adding the profit of the post and telegraph in Bavaria and Wurtemburg gives 31,000,000 marks, or $7,750,000, for the yearly profit of the post and telegraph in the whole German Empire. (The German post office, including the mail, telegraph, and telephone, now clears over $11,000,000 a year, 1898–99.) In the last ten years Great Britain has cleared $155,000,000 on its post and telegraph, an average of $15,500,000 a year, or more than $14,000,000 a year after paying interest on the telegraph debt; that is, double the profit you make (according to your reports), and it goes into the people's treasury, not into Wall Street to be used as a club to extort more wealth from the producers. Does the statement seem large? You'll find the data on page 10 of the forty-first report of the British postmaster general.[1]

2a "Whatever may be said of European railway and postal profits, it remains a fact that England, France, Belgium, and Europe generally make a deficit on the telegraph service. In the United States there is a deficit even in the post. If we make a loss where Europe makes a profit, what shall we do in a business that even in Europe is run at a loss?"

Let us see. The Belgian Government reports the receipts of the telegraph and telephone department as substantially 1,650,000 francs above all expenses.[2] France also makes a profit on her telegraph.[3]

The English telegraph, as we have seen, is reported by the postal authorities as clearing a good sum above expenses of operation, not always enough to cover the interest on the inflated telegraph debt,[4] yet, taking the whole 30 years of its history together and including all items of expense, interest, construction, and all, the postal telegraph has saved the English people $150,000,000 at least. The service they have had from the postal telegraph would have cost them that much under private ownership, to say nothing of better service, higher wages, etc.[5] P. B. Delany said to the Butler committee in May, 1896:

"One of the main points made by the opponents of telegraphy by the Government is that the British post-office telegraphs do not pay. This is a misleading and truth-impoverished statement. It is well understood in England that the telegraph branch of the post office has not a distinct financial head, and that the post-office accounting bureau arrange disbursements and expense items from a standpoint not in accord with the ideas prevailing among the heads of the telegraph service, and that if the telegraph

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[1] The text was written in 1896. The forth-fifth report of the British post office shows a profit of $17,600,000 for 1899, or enough to pay the interest on the telegraph debt and leave over sixteen millions clear surplus. For the 10 years, 1890 to 1899, inclusive, the total profit of the British post office was $161,672,000, an average of $16,167,000 a year, or more than fourteen and one-half millions after paying interest on the telegraph debt. In 1898 the German State railroads made a profit of $722,000,000 marks ($180,000,000), and the State railways in Prussia cleared 75 million dollars above interest and all. The German post office cleared 44,986,000 marks ($11,240,000) in 1898–9. The French post office cleared $11,680,000 (1897). The State railroads of little Belgium made a profit (1898) of 73,341,366 francs ($14,660,000), or 11,844,896 francs above interest and sinking fund. Since 1835, after paying 99,072,972 francs toward the cancelation of capital, the Belgian roads have accumulated a clear surplus of 103,564,009 francs above the cost of operation, interest and sinking fund. The Belgian post cleared 10,200,000 francs ($2,040,000) in 1898. In Austria-Hungary, with over two-thirds of the railways operated by the State the railroad profit in 1897 was 160,000,000 gulden ($70,000,000). The post office cleared $4,000,000 in 1898. New Zealand made $2,600,000 profit on her public railways in 1898–9. Every Australian State makes a profit on its railways—one of them realizing as much as $5,000,000, and another $7,000,000 profit in 1898–9. When the president of the Western Union said, "Governments never make any money out of anything," did he know the facts, or was he deliberately testifying about something of which he was wholly ignorant. Charity hopes the latter, but even Charity must recognize that it is hardly honest to refrain from ascertaining the facts before attempting to state them, especially in testimony to a national committee investigating a matter of vital importance to the country. It is a question between dishonesty by deceptive testimony given in the light of knowledge and with malice aforethought, or dishonesty by reckless statement in the density of self-imposed intellectual darkness.

[2] Rapport par le Ministre des Chemins de fer, Postes, Telegraph, Telephone, et Marine (1898).

[3] Annual Cyclopedia, art. France, subhead Post and Telegraph.

[4] The deficit for 1899, including interest, is £197,000 on a business of 87,043,652 telegrams, costing the the people 14¾ cents each, less than 16 cents each, including the deficit and all, while our telegrams cost us 31 cents each.

[5] See Ch. X.

branch kept its own books the yearly exhibit would show a handsome profit not only above operating expenses, as now, but above all expenditures, including interest on the enormously excessive purchase price." [1]

It appears, therefore, that, if we may rely on the Government reports and the statements of European authorities in closest touch with the telegraph service, we shall not be able to accept your assertions regarding England, France, and Belgium. Neither is it true that Europe, as a whole, makes a deficit on its telegraphs, although the lines in southern and eastern Europe have little business to sustain them. The very figures given by the Western Union to show a deficit of $2,000,000 in Europe disclose the fact of a substantial profit on the operation of the telegraph, when construction expenses are taken out of the column of operating expenses, where the Western Union put them,[2] thinking, perhaps, that it was dealing with private corporation accounts, or being so much in the habit of classing construction cost in that way to enlarge its apparent operating expenses, that it has come to be second nature. If a farmer spent $4,000 last year in raising crops which he sold for $6,000, and then bought a new piece of land for $3,000, I suppose the Western Union would say he had a deficit of $1,000. If a miller paid out $15,000 for labor, materials, rent, interest, repairs, and depreciation, and sold his product for $20,000, and the same year built an additional mill that cost him $8,000, the Western Union would state the account thus:

Expenses	$23,000
Receipts	20,000
Deficit on the year's business	3,000

showing a considerable loss, while the miller might be laboring under the impression that he had made a profit of $5,000.

The deficit in our post office is real, but what is the cause of it? A deficit may arise from overpayment for labor, materials, etc., from defalcation or misconduct of officers, from miscalculation in placing the rate too low, or from a deliberate policy of paying a part of the whole cost of the service by taxes.

If the running expenses of a private company exceed its receipts, we know it is losing money, but no such inference can be drawn in the case of a public institution from a mere excess of expenses over receipts. The people may choose to pay part of the cost in taxes instead of tolls, for the sake of simplicity or to encourage the growth of some beneficial business by means of low rates; and thus a deficit may be caused, although the business is being managed with the utmost economy and success.

The accounts of our street departments show a deficit equal to the whole expense because the whole cost is paid in taxes, and no tolls are levied. A public water plant may show a deficit because it makes low rates to encourage the use of water in the poorer quarters of the city, and yet the total cost in taxes and rates together may be a good deal less than the people would have to pay a private company for an equal service. It is impossible to tell anything about a public deficit till you know its cause.

In the post office very low rates are made on second-class matter, county matter free, and 1 cent a pound for the rest, an average of 8½ mills a pound on the whole. If this be regarded as the cause of the postal deficit, it does not indicate that the people are losing money; it simply means that they pay part of the postal cost in taxes in order that newspapers and magazines may be very cheap. If a private company owned the post office the present mails would probably cost us $160,000,000 a year, instead of $100,000,000, taxes and all, as at present. (See Ch. XV, note 16.)

There is, however, in our post office another cause of deficit of an entirely different order. I refer to railway overcharges. The postal deficit is really due to the greed of private corporations; the heavy loss on second-class matter is caused by excessive railway rates.

In another volume of the Equity Series, dealing with "The Railroad Problem," it will be shown that the Government pays the railroads for carrying the mails at rates far in excess of the fair figures as indicated by freight, passenger, baggage and express rates, and that if reasonable rates were paid, such as a private shipper could honestly obtain for like service, there would be no deficit, but many millions of surplus every year, which would justify 1 cent letter postage and a large extension of the free delivery system without increasing the rate on second-class matter. If this were done and a national parcels post introduced, postal savings banks established and a fund accumu-

[1] S. Doc. 291, May 26, 1895, p. 2. Even if there were a real deficit it would prove nothing except that the English people choose to pay part of the cost of their telegraph in taxes so as to bring the service within the reach of the farming population and others in the thinly settled districts.

[2] S. Mis. 79, 42-3, p. 7. Six million dollars for new construction were included in operating expenses in the Western Union statement of European results. If instead of including Turkey, Spain, Russia, Roumania, Portugal, and India, we compare states of the same relative position as our own, such as Germany, Belgium, England, Austria, etc., we find a net profit of 16 per cent of the gross receipts. Ibid., p. 7.

lated for the purchase or construction of a postal telegraph and telephone system, our post office would begin to serve the people in something like a just ratio to its possibilities.

The railway rates for hauling mail have not been modified for 20 years, the freight rates have fallen 35 per cent in that time and passenger rates 27 per cent, according to Poor's Railroad Manual. After the weight of 5,000 pounds a day is passed the Government pays the same rate for hauling 300,000 pounds a day as for hauling 2,000 pounds a day. Although the mail rates, or payments by weight, much more than pay for the whole service, yet in addition to them the Government pays an extra charge for the use of the railway post-office cars, averaging $6,250 per car per year. It costs $2,500 to $5,000 to build and equip a car, and their average value, according to Postmaster General Vilas (1887), was about $3,500. The Postmaster General spoke of one line that was receiving $59,037 a year for the use of 4 cars that could be built and equipped in the best modern style for $17,500, and this in addition to full-weight pay for transporting the mail carried in these very cars. In 1897 one of the giant railway systems was receiving an average of $7,327 a year for each of 69 post-office cars, and another $8,500 for each of 50 cars, in addition each time to full-weight pay. The strongest proofs of the excessive nature of the railway mail charges would occupy too much space to permit their presentation here, in view of the fact that the subject specially pertains to another number of the Equity Series, but the above items are given in order that the reader may realize that there are forceful facts behind the broad statement put forth above. To say that more than half the thirty-five millions paid the railways for haulage of mails is overcharge will be deemed a mild proposition by unbiased readers acquainted with all the facts.

So far we have been treating the matter as a question of reasonable compensation, as if the shipments were made by a private concern having no special claim on the roads; but when we note the fact that a very large part of the freight, express, and passenger business of the roads is due to, directly or indirectly produced by, the correspondence and other matter that goes through the mails, we may realize that the roads could well afford to carry the mails without direct charge, being paid many times for the service by its indirect returns to their treasuries; and when we remember that the roads enjoy public franchises of enormous value free of charge, the conclusion that they could well afford to carry the mails free may become a conviction that they ought to do so. If the people owned the roads the gain would be vastly more than the mail payments. The whole profits of railway and express business (together with the savings effected by consolidation of all the roads and companies into one harmonious system, the elimination of lobby expenses, etc.) would accrue to the people in lower fares, better wages, improved service, and public profits, if the roads were owned by the nation and managed as well as the national roads of New Zealand are managed.

Even with inferior management public operation, with its accounts in the daylight, would certainly destroy discrimination, and so remove the deficit in many a worthy business office. Neither need there be a fear that there would be a deficit on the public railway books as there is now on the postal books, for the real cause of the postal deficit is the pressure of the private railways keeping the railway mail rates unreasonably high. In February, 1897, Senator Marion Butler proposed in the Senate that the Government should not pay more for transportation than the express companies pay for similar service, and that the annual rental for postal cars should not exceed 10 per cent of their value. It is hard to see how an honest and patriotic Senator or Congressman could object to that, but the railway influence has up to this time been strong enough to prevent such action. To eliminate the private railways will not be to establish, but to remove, a cause of public deficit.

So far from being an argument favorable to private corporations or against public ownership, the postal deficit, from whatever point of view we regard it, proves to be a powerful argument against private corporation methods and in favor of more public ownership.

CHAPTER XIV.—WESTERN UNION ARGUMENTS—(CONTINUED).

BEST AND CHEAPEST SERVICE—OPERATING COST—TEN-CENT RATE—WATERED STOCK—PATRONAGE.

(3) "Well, anyway, the Government cannot perform the service so economically as private parties. The Western Union service is the best and cheapest in the world."

Best in the world! Prof. Newcomb says it is the dearest and worst in the world, among enlightened nations,[1] and other eminent men who have traveled abroad substantiate his statement, as we have seen; this testimony is disinterested, while yours may be an example of the tendency of vendors to assure their customers that they cannot buy so much for so little money anywhere else in the world.

As for your system being the cheapest in the world, we ask you, as Senator Hill asked your president when he made the same assertion, "How can you say your system is the cheapest when several countries of Europe carry messages at half a cent a word?" And perhaps you will turn a somersault, as your president did, by replying that if you "paid as low wages as in Europe rates would be no higher here than there," and then proceed as another president did to tabulate the wages of European telegraph employees and generously furnish the proof that the average in some European countries is higher than here.[2]

The Raynor committee said in 1888, "It has been said time and again by the president of the Western Union, arguing against the necessity of governmental interference, that their system is the cheapest in existence. This the undersigned are prepared to show is incorrect. We are prepared by a comparison with European systems to satisfy Congress that, making all due allowances for distance, the average rate for telegraphing in this country is higher than it is in Great Britain and in most of the countries of continental Europe.[3]

The fact is that Western Union rates are more than double the European tariff.[4] Cheapest in the world? Why, even half-civilized Paraguay has a postal telegraph system that transmits telegrams at one cent a word.[5] It stands to reason that you cannot make low rates and pay big dividends on watered stock.

You know very well the Government can borrow money at lower rates than you can, and obtain the highest administrative and constructive talent at far lower salaries than you can,—a man for Postmaster General at eight thousand a year, whose time no private corporation could hire for a hundred thousand. The Government pays more for ordinary labor than you do, but it gets back more than the difference in the increased efficiency of well-paid labor. You know very well that the savings by combination with the post office will be very great,[6] and that the total of the economies consequent on public ownership[7] will run up to many millions. You know very well that with good civil-service rules and direct employment the Government can work more cheaply than a big private corporation, and that cases of overcost in public business are due to the contract system and the spoils system, both of which are being eliminated and are foreign to the plan proposed. Even with the burden of large contracts with private corporations, more officials than are needed, and numerous posts still filled according to political considerations instead of with sole regard to merit,—even with all these drawbacks, Mr. Gardiner G. Hubbard, a man most eminently qualified to speak as being intimately acquainted with corporation history, says:[8]

"I do not believe there is any corporate business in this country managed more economically than the Post Office Department. I do not believe you can find any great corporation that is managed more faithfully than the United States Treasury, with as little loss or a more thorough accountability.

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[1] "It is now nearly 25 years since Great Britain, in whose soil laissez-faire is supposed to have taken deepest root, followed the lead of most other nations in nationalizing the telegraph. In adopting the same policy we should not only be taking a measure suggested by the good sense of nearly all christendom, but one demanded by our own interests. We have to-day the dearest and the worst telegraph service of any enlightened nation which has a well-organized public service. In England, France, Germany, or Switzerland, a dispatch can be sent for about half the price and with much greater expedition than in this country. * * * We have paid, in the high cost of our service, for all the scandals which the manipulation of telegraph stocks has produced in the money market." (Quarterly Journal of Economics, Harvard University, vol. vii, p. 391 July, 1893, article on "The Problem of Economic Education," by Prof. Simon Newcomb, a world-famous astronomer and mathematician, senior professor of the United States Naval Observatory in Washington, later professor of mathematics and astronomy at Johns Hopkins University, a man of the highest scientific character, who made political economy his choicest field of intellectual recreation.)

[2] S. Rept. No. 577, Pt. II, p. 25; H. Rept. No. 114, pp. 43, 129.

[3] H. Rept. No. 955, 50-1, p. 2.

[4] See Chaps. II, IX and X of this discussion.

[5] S. Doc. No. 205, 54-1, p. 50.

[6] Estimated at $1,500,000 at the very least by the Washburn committee in 1872, on the basis of 40,000,000 messages a year, considering simply the items of salaries, rent, light and fuel.

[7] Enumerated in Chapter XI.

[8] S. Rept. No. 577, Pt. II, p. 61, and I. T. U. hearings, 25-26.

"Governmental work costs more than private work; so does corporation work cost more than private work—a corporation can not get anything like the amount of work out of its employees that a private individual can—we are dealing here between the Government and corporations—it is not a little individual undertaking, but a vast business that must be done either by public or private corporations. When you ask me which is the cheaper, a Government telegraph constructed for the benefit of the people, or a corporate system constructed for the benefit of the corporation, then I say the Government system is the better for the people.

"The CHAIRMAN. I understand that, but what I want to know is whether or not the Government would not be more extravagant in its management necessarily?

"Mr. HUBBARD. I believe, sir, that the Government of the United States has done all its work more cheaply than the great majority of the corporations of this country. I think it would not be very difficult to prove that.

"The CHAIRMAN. There are a great many efficient men in the service of the United States Government, but do you not know as a matter of fact that in all the various departments of the Government there are a great many people who are employed there not on account of their efficiency but for sentimental or for political reasons?

"Mr. HUBBARD. A great many.

"The CHAIRMAN. And for charitable reasons?

"Mr. HUBBARD. A great many; so there are in corporations.

"The CHAIRMAN. But that is not so much the case among corporations as it is in the case of the Government.

"Mr. HUBBARD. Well, you will find the same thing running all through. There is more nepotism in corporations than there is in the Government.

"The CHAIRMAN. I wanted to get your idea.

"Mr. HUBBARD. The Government is looked after more sharply by the people than corporations are by their stockholders."

(4) "A 10-cent rate would be ruinous. It is true that business would increase if the rates were lowered, but expenses would increase in proportion to the increase of business."

As to the rate, your president said in the North American Review that "there is a considerable telegraph business done in this country at a 10-cent rate," but he does not say it has proved disastrous. We have seen that the Baltimore & Ohio made a profit at 10 cents, and the line from Chicago to Milwaukee made at 5 cents a profit of about 50 per cent. Your president says that most of the business outside the great cities is done within 100-mile circuits,[1] which is very nearly the distance between Chicago and Milwaukee. He also says, as we have seen, that the line repairs, etc., the expenses dependent on distance, only amount to 2 or 2½ cents a message, which, added entire to the Milwaukee cost, only makes 5 cents a message. Doubling or trebling the business would reduce the distance item to about a cent on Western Union data, and the automatic together with the economies of combination with the post office might reduce the other items to the Milwaukee figure with the same care and good man gement that company enjoyed.

As for your assertion that expenses increase in proportion as business develops, we have your own statistics to the contrary. In a pamphlet prepared some years ago by your attorney and distributed by you, the facts on this point both for Europe and America are stated as follows:[2]

	Number of years.	Per cent increase of business.	Per cent increase of expenses.
Germany	5	259	83
Belgium	5	252	61
Holland	5	142	62
Denmark	5	149	38
United States	5	80	27

Your reports show that while your business grew about sevenfold from 1870 to 1892, your expenses increased only a little over threefold. For 1899 your business is a little less than for 1892 (but still nearly sevenfold the business of 1870), and your reported expenses somewhat larger but still under fourfold the expenses of 1870.

[1] Bingham hearings, 1890, p. 43.

[2] S. Mis. 79, 42-43, p. 13.

When an increase of business occurs by reason of reduction of rates, and there is no material change in the plant or the wages of employees, it is estimated that 100 per cent increase of business is accompanied by an increased expense of not more than 33 per cent.[1]

Some time ago Judge Walter Clark, of the Supreme Court of North Carolina, proposed that, while waiting for favorable action by Congress, the legislature of each State should pass a law reducing the telegraph rates to 10 cents for 10 words between any two points within the State. He said that this would give the people a considerable immediate relief, would hasten national action by accustoming the people to lower rates and to legislative control of the telegraph, and would reduce the exorbitant profits of the companies, thereby diminishing the power and influence they can exert for the prevention of public ownership. A number of newspapers favored the proposition, among them the New Orleans Times-Democrat, one of the leading papers of the country, which pointed to the fact that the national laws for the improvement of the railway situation were not passed by Congress until the States had led the way with acts reducing the freight passenger rates, forbidding discrimination, etc.

Three years ago in the North Carolina legislature a bill was introduced to fix the telegraph rate at 15 cents between any two points in the State. The Western Union sent its lobby to Raleigh, and the bill was beaten by just one vote. But in July, 1897, the railroad commissioners took action in the premises and fixed the rate at 15 cents. The Western Union have taken the matter into the Federal courts, declaring the new rate unreasonable. That is probably true, but not in the way they mean—the rate is still too high, notwithstanding the reduction of 40 to 70 per cent on the rates now charged in the State. The railroad commissioners in their answer set forth the history of the Western Union, showing that "the total actual expenditure of the company, from its organization, of money derived otherwise than from its bonds, will not exceed $16,000,000. That, adding its $15,000,000 of bonds, would make a total of $31,000,000. That many of the lines purchased by the Western Union were utterly worthless duplicates built solely to be bought off by the complainant, and in some of which many of its officers and directors were largely concerned, so that they were personally interested in selling at exorbitant prices, and that nearly all the company's lines are much depreciated in value. That the total value of the entire plant, including offices, fixtures, and other property, does not exceed the sum of $20,000,000. That according to the estimates of reliable experts, it could be replaced for this sum. That substracting from this sum the amount of $15,000,000 outstanding bonds, there is left the sum of $5,000,000 of tangible and actual basis for the $97,370,000 of stock. That the 15-cent rate is not only reasonable within the State, but if applied to the entire business of the company, not only within each State, but between the States, a 15-cent rate would enable the company to maintain its lines, defray its operating expenses, and pay a reasonable dividend upon the actual capital invested in its business. That the complainant is and has always been collecting exorbitant and unreasonable charges from the public not only in the State of North Carolina, but in every other State of the Union, and that if the charges should be reduced to 10 cents for a message of 10 words, without reference to distance, the complainant would still make a fair and reasonable profit on the actual value of its lines, or upon the amount of money required to replace them."

(5) "Complaint is made about watered stock. If the stock had not been watered it would have risen in value to a corresponding degree and the resulting capitalization would have been the same that it is to-day. If we had not watered our stock a thousand dollars of it issued half a century ago would be worth $37,000 now. The value of a plant depends on its earning capacity—if that increases the company may issue new stock to represent new value, or it may allow the old stock to rise, as the Chemical Bank has done, each share of whose stock sells at 48 times its face. The Western Union has always been satisfied with a moderate profit, often no more than 6 or 7 per cent. It has lowered rates whenever possible. The prevalent notion that stock watering is a means of enriching capitalists and swindling the public is a myth born of superstition and fear of capital."[2]

A myth is it? Let us see. Where does the increased earning capacity come from? You invested three or four hundred thousand dollars in the telegraph business. It was not a large business in the early years, but paid a good profit. The business grew and the earnings began to pile up. What did you do—lower rates so that your profit would remain at a fair per cent upon your investment? Not a bit of it. You did not lower rates except when compelled to do so by competition or agitation for a national

[1] S. Mis. 79, 42–43, p. 13.
[2] "The Stock-Watering Myth," Gunton's Magazine, Apr., 1896, p. 275.

telegraph—you even raised rates whenever you thought it possible to do so without risk.[1] But you knew that the payment of 20, 30, 50, 100, 300, 500 per cent profits would be apt to rouse the popular sentiment of justice to dangerous activity, and so you watered the stock up to the increased earning capacity in order to conceal from the public the real state of the case. The unjust profits from "increased earning capacity" constitute the original sin. You have no right to enormous profits from an increased earning capacity due to the growth of the country and the monopolistic privilege of maintaining unjust rates. Real competition would bring the rates down to a fair profit on real investment. A profit beyond that is extortion—unearned increment—taxation without representation.

You point to fortunes made from the rise of land values and tell us of a New York bank that has not watered its stock but has let it grow in value till it is worth 48 times its face, but you can not deceive us by turning our eyes from your injustice to other injustices. It is always an injustice when the wealth created by the labor of one man or set of men is drawn to another man or set of men without equivalent service, and in whole or part by reason of a mere advantage of position. It is unjust when wealth created by A is drawn to B's pocket irrespective of B's merit or service. It is unjust when B's advantage arises from circumstances beyond his control, and he merely takes the benefit of prices fixed by the general current of events in the open markets of the world. It is infinitely more unjust when B's advantage is the result of his own determined effort to overreach his neighbors, and his prices are of his own manufacture, the market being in his control. The unearned increment resulting from the natural rise of land values, or the growth of population about a business location, is sufficiently unjust, but it is the soul of righteousness compared to the unearned increment derived from the artificial maintenance of high charges on the part of a giant monopoly whose rates and earnings are not fixed by natural forces operating in an open market but are determined by its own arbitrary power. The man who put $1,000 into Western Union stock half a century ago and has got his cash dividends all along, averaging 300 per cent a year, together with watered stock to the value of $36,000 is a participator in a crime against the Commonwealth—a large part of what he has obtained is wealth for which he has given no equivalent and which ought to have remained with the men who created it.

You say that if you had not resorted to water, B's stock would be worth $37,000,[2] as though that makes it all right. The fundamental sin lies in the policy of high charges that enables the monopolist to realize a profit large enough to make a purchaser willing to give 37 times the real investment, 37 times the actual cost of what he buys. All companies that refuse to give the public the benefit of its own growth and development are sinners against justice and public policy; but the company that seeks to cover up its fraud with water and make the public believe a 259 per cent dividend is only a payment of 7 per cent is the meanest and most cowardly sinner of the lot.

If we call for justice it looks injured and says it wants only 6 per cent, but it doesn't say on what it wishes to estimate the 6 per cent—it wants the innocent public to think it means 6 per cent on the capital it has really invested, whereas it intends to calculate the 6 per cent on all the water it has issued, and if you get down to the facts and expose the lie, it looks injured again and says it is a superstitious fear of capital that leads to complaints about water (as though water were capital), and tells us that its "earning capacity" has grown, hoping we will not see through the misnomer to the extortion beneath it. The maintenance of extortionate rates, the inflation of "earning power" through the unjust use of the charging power, the persistence in a tariff higher than was necessary to yield a fair profit on the real investment was one swindle, and the

[1] When you bought out the Baltimore & Ohio you raised the rates throughout the system, although it had been making a profit at the old figure—a 10-cent rate on a number of routes.

There is a passage in the Postmaster General's Report for 1891 that is interesting in this connection. It states the change of rates as follows:

	Average toll per telegraph message.	Average cost by company's reports.
In America:		
1887	30.4	23.0
1891	32.5	23.2

An increase of 2.1 cents or 7 per cent in the average rate, with an increase of less than 1 per cent in cost. He compares this with England—33,278,000 telegrams sent in 1884–5 at an average cost of 26 cents, and 66,400,000 messages in 1891 at a cost of 17 cents, i. e., an increase of 100 per cent in business and only 30 per cent increase in total cost.

[2] Gunton's Magazine, April, 1896, p. 275.

issue of watery stock to conceal, diffuse, disguise, and perpetuate that swindle was of itself a further swindle.

You say that you have always been satisfied with a moderate profit of 6 or 7 per cent; but by your own confession an early investment of $1,000 would be worth $37,000 now, and 7 per cent on $37,000 would be 259 per cent on $1,000, so that B is getting 259 per cent a year. Including the stock dividends as well as cash, your dividends from 1858 to 1866 amounted to 700 per cent a year—here is the account:[1]

1858, capital stock	$385,700.00
1858 to 1866, stock dividends	17,811,140.00
1858 to 1886, cash dividends	4,156,240.00
Total	21,967,380.00
Annual earnings	2,745,920.00
On a capital of	385,700.00

Cash dividends of more than 100 per cent a year and total dividends over 700 per cent a year.

Is that what you call a moderate profit?

Under the Nichols law in Ohio telegraph companies are taxed on a value ascertained by taking the same proportion of the total market value of the capital stock that the lines in the State bear to the total lines of the company. The assessors took the market value of Western Union stock, subtracted the real estate and the stocks and bonds of other companies held by them, and dividing the remainder by the total number of miles of line belonging to the company, found the assessable capitalization per mile of line to be $364. This gave $3,016,614 for the 8,272 miles of line in Ohio. As assessments in Ohio are at two-thirds value, the Western Union was assessed on $2,000,000. The company rebelled and took the matter into court, claiming that the law was unconstitutional and declaring that all its property in Ohio was not worth more than $647,000. That the average cost of the poles was $1.50, plus $1 more to put them up ready for wire; that the wire cost $17.50 per mile, and stringing $4, and that the total cost per mile was not above $103.60.[2]

These declarations of the company indicate for its whole plant a value considerably under $20,000,000, which agrees pretty well with the expert evidence set forth in a former chapter, but is not in harmony with Western Union testimony before congressional committees and in arguments printed for general distribution—a tax case is different from a congressional examination, and different cases should be treated differently—it's tiresome to keep repeating the same statement over and over—better adapt the statement to the occasion—it's all very well to pay dividends on 97 millions of stock, but when you come to pay taxes on it, it's different.

(6) "A postal telegraph will endanger the liberties of the people. It will increase the Federal patronage and give the administration party an immense advantage in closely contested elections."[3]

Endanger the liberties of the people! Strange that Switzerland and France are still republics after half a century of the postal telegraph. Strange that Australia, New Zealand, and England are still free.

It is so much safer to trust the telegraph to the disinterested patriots, Gould, Morgan, and Sage, than to let the piratical Postmaster General manage the business; now we think of it we ought to turn the post office over to Gould and Sage and the Army and Navy to Yerkes and Rockefeller—we shall be much safer that way than with these dangerous institutions in the hands of the Government.

The increase of patronage would be very alarming, especially under civil-service rules. The increase would not amount to more than one-third of the postal employees,[4] and if the district system should go into effect at the same time the saving in the staff would about neutralize the telegraph increase; but anyway the danger is great—American citizens are patriotic and independent as long as they work for a private corporation, a telegraph company or a street-car syndicate, but as soon as they are employed by the Government they become tyrants and slaves. We must be careful not to enlarge the post office. It is the post office that keeps a lobby at Washington and bribes legislatures to get the privilege of lining its pockets with the people's gold,

[1] S. Mis. 79, 42-3, pp. 15, 16.

[2] Western Union Telegraph Co. *v.* Auditor of Ohio, (61 Fed. Rep., 447); State *v.* Jones, (51 Ohio St., 492; 165 U. S. 194, Feb. 1, 1897); and see 64 Fed. Rep. 9, reversing the decision of 61 Fed. Rep., and holding the law constitutional, the State supreme court in 51 Ohio, and the U. S. Supreme Court in 165 U. S. having sustained the validity of the statute. (See also W. U. Telegraph Co. *v.* Mass., 125, U. S. 530, and Pullman Palace Car Co. *v.* Penn., 141 U. S. 18.

[3] Pres. Green in No. Am. Rev., vol. 137, p. 422.

[4] Senator Edmunds's testimony, S. Rept. No. 577, Pt. II, p. 11.

while the Western Union goes quietly about its business, serving the people at cost. It is not Gould, but the Postmaster General, isn't it, that stands accused of trying to steal a couple of presidential elections? It is not the telegraph monopoly, but the post office, isn't it, that muzzles the press and raises rates on newspapers that print articles objectionable to the post-office millionaires? We must give the post office to Gould and Sage to get it purified—it will be a great additional care, but I think they will be willing to sacrifice themselves a little more for the public good.

The Hon. John A. Anderson, of Kansas, contemplating the dangers predicted by Dr. Green, of the Western Union, spoke as follows in the House March 1, 1884:

"Standing upon the eminence of his vast experience and looking down upon the busy population of the continent, the doctor's eye rests upon a town of say 5,000 persons, having 1,000 voters and a post office in which are two Government operators, one for day and one for night service. On election morning his prophetic soul discovers that pale-faced but bloody-minded night operator rallying at the polls and savagely tearing the liberties of the people into tatters by ruthlessly compelling the thousand voters to deposit the ballot indicated by the administration party. And this fiendish outrage would actually be accomplished were it not for the gallantry of Dr. Green, who, rushing to the rescue with the Constitution in one hand and the flag of the Western Union, starry with franks in the other, leaps between those hundreds of defenseless American citizens and that terrible desperado of an operator, while Mr. Gould silently continues to gather in the Western Union ducats. If the lobby of the Western Union can prevent it, that bloodthirsty operator shall not surround and capture any regiment of Americans anywhere! In my district of 160,000 people there would be, if the postal telegraph were established, just about 20 such bristling political pirates, and at least 10 of them would be girls."

Prof. Ely says:

"We find that after long years of experience practically the whole civilized world except the United States has decided in favor of the public ownership and management of the telegraph. And nowhere has it been found that there is any political objection to public ownership and management. The experience of monarchical and that of republican countries tell the same tale."[1]

He further says that in France and Prussia the extension of governmental functions has gone hand in hand with the purification of the Government.[2]

In 1894 the Hon. Marion Butler, president of the Farmers' Alliance, and now United States Senator, used these words before the House Committee on Post Offices and Post Roads:[3]

"A question was asked by one of the members of the committee this morning in regard to the improper use of patronage in political campaigns. All the men who are now in the employ of the telegraph companies have votes. They belong to one party or another. They vote, of course, as a rule—that is natural—for the party most favorable to their organizations and business interests. Of course there are exceptions to that. Well, now, suppose one party is in power and that the Government owns these telegraphs. Its offices will be filled from the members of the party in power. You would thus not add a single voter to the party. That party has the same number of voters it had before. All the army of officeholders would simply belong to the Republicans, to the Democrats, or some other party, and each voter would vote his way every time.

"But let the Government take charge of the telegraph, and you will not then be putting millions into the coffers of a corporation which would use the money to protect its own interests."

"Mr. QUIGG. Do you not think governments are subject to precisely the same selfish motives that other organizations are? Do you not see in the creation of this force as a governmental force the largest kind of an opportunity to control political results in a close State?

"Mr. BUTLER. There is more influence now used for control by the concentration of money into a few hands than there could possibly be used if the Government would furnish telegraph facilities at cost. That seems to me so self-evident that I did not consider it worth while to discuss it.

"You are all familiar with the lobbyist. I have been in a State legislature and know what lobbying is there. Suppose you could do something that is a proper function of the Government, and for the benefit of the people at the same time. That would remove all that harassing and devilling that is now enough to make you lose your religion and resign and go home, where you could be relieved from all that and be at peace.

"Mr. QUIGG. I have only been here three months, but I have not been spoken to by a lobbyist on any subject in that line.

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[1] Dec. Arena, 1895, p. 52. [2] Prof. Ely's Socialism, p. 285. [3] I. T. U. Hearings, p. 46.

"A MEMBER. I have."

Justice Brown, of the United States Supreme Court, wrote in the Forum of August, 1895 (p. 649):

"If the Government may be safely entrusted with the transmission of our letters and papers, I see no reason why it may not also be entrusted with the transmission of our telegrams and parcels, as is almost universally the case in Europe."

The Washburn committee said:[1]

"It remains for the committee to note the objection urged against a Government telegraph that it would be a dangerous instrument of political power in the hands of the dominant party, in whose possession would remain the secrets of the opposition, and that its operatives would all be in the interest of the administration. In answer to this it may be said that the party which inaugurates this system will be compelled to employ most of the operators in the United States, regardless of their political views; and, as the bill provides that employees shall not be discharged except for cause, and as cipher messages can always be employed for the security of party secrets, these objections lose their force, and are not to be weighed against the great advantages of a system regulated by law, guaranteed by the severest penalties."

Victor Rosewater says:[2]

"My investigations were confined to four countries—France, a republic; England, a constitutional monarchy; and Austria and Germany, limited monarchies. In all of these countries the responses to my inquiries in regard to this political danger were the same. They stated that no such charge had ever been made, or any such danger anticipated. In Germany the director general of the German telegraph said: 'There are quite a number of Social Democrats in the telegraph service. These men are virtually committed against our form of government, but we can not interfere with them so long as they do not conduct themselves in a treasonable way.'"

John Wanamaker says that the postal telegraph plan "is not a proposition to put any power in the hands of the Government which is not at present greater and more dangerous where it is."[3] That appears to me a very exact statement of the situation. The telegraph is a power—it can be used for evil as well as for good—it will be less likely of abuse in the hands of the agents of the people elected by the people to serve the people and working under the eye of the people, than it is in the hands of Wall Street speculators elected by themselves to serve themselves and working in secret without any check but their consciences, which in many cases were born deaf and dumb or have forgotten how to talk. As for patronage, the civil-service rules that form a part of our plan will destroy it, and if proper civil service does not come with the postal telegraph or before it, the nationalization of the telegraph will go a long way toward accomplishing the coordinate, interlocking, interdependent, mutually essential reform of the civil service.

CHAPTER XV.—OBJECTIONS AS TO DAMAGES, SECRECY, PROGRESS.

(7) "If a telegram goes wrong now you can get damages from the company, but you can't sue the Government."

Really you ought to drop that point now that you have sued the Government yourself. On page 56 of the Postmaster General's Report for 1891 the margin says: "The Government sued," and the text explains that the Western Union brought suit against the Government to recover all it claimed to have lost by the action of the Postmaster General in fixing the rates for government telegraphy as the law of 1866 authorized him to do. In other words, the Western Union wished to make the Government pay the full rates charged the public. (See also Postmaster General's Rept., 1893, p. xxx.)

There is no reason why the government should not make provision for the payment of damages when it establishes a national telegraph. And if the damages are not paid it will be a perfectly easy thing to sue the Government or the department and much more likely to bring the plaintiff justice than a suit against the Western Union, for the Government is anxious to do justice, and the Western Union has other use for its anxieties. It is the government's business to see that justice is done; it is willing to sacrifice money for that purpose, but the Western Union would rather sacrifice justice for money.

In Massachusetts claims against the State are tried in the Superior Court.[4] Claims against the United States are tried in the Court of Claims.[5] It is the simplest thing in the world to frame the postal telegraph act so as to afford far more protection to patrons

[1] H. Rept. No. 114, pp. 52–53.
[2] Voice, Aug. 29, 1895, p. 8.
[3] Wanamaker's argument, 1890, p. 12.
[4] Pub. Stats., p. 1111.
[5] U. S. Revised Stats., sec. 1059.

than they have to-day.[1] Western Union policy is to fight claims [2] and make it cost more to collect them than they are worth, so that patrons will be afraid to push their rights, deeming it wiser to suffer the ills they have than fly to others they know too well.

(8) "The secrecy of messages would be violated."

This objection was made in England when the transfer of the telegraph to the Government was under discussion. The objection proved groundless. No suspicion of espionage or violation of secrecy has been raised since the transfer, and no complaint of that nature is discoverable in any country having a public telegraph. On the other hand, it is charged that the Western Union "leaks like a sieve." [3] The objection sounds very much like the plaint of a naughty boy who is up to the trick himself and thinks the new boy will do the same thing.

The New York Star says: "In the first place cipher codes are accessible to everybody. In the next place, no service could be more untrustworthy than was that of the Western Union in 1876, when it permitted the secrets of its patrons to be violated and bandied about." Victor Rosewater, a former Western Union manager, says: "The company does not scruple to appropriate press dispatches, board of trade news and other paid matter and dole it out to bucket shops, pool rooms, gamblers and political clubs all over the country. The secrecy of the telegraph is a farce in this country." [4]

In Europe public operation under strong enactments against violation of secrecy has proved effective,[5] and it would be the same here.

(9) "There will be no incentive to invention and improvement, and altogether a Government telegraph will be inefficient and nonprogressive."

The evidence is that the Government telegraphs of Europe and Australia are more efficient than our private telegraph. Professor Ely, President Walker, R. B. Lines and others eminently qualified to judge and entirely disinterested, tell us that is the fact. Professor Newcomb, also an authority of the highest character, says (as we have remarked before, but it won't hurt you to hear it again) that your service is the poorest in the world.[6] Mr. Delany, the famous electrician and inventor, said to the Senate Committee on Postoffices and Postroads, "I can not conceive of a stronger incentive to a government system of telegraphy in this country than the example of thorough efficiency and success presented by the British postal system," and again he speaks of the "energetic management that has given the British public the best telegraph service in the world." [7]

Cyrus W. Field, the founder of the Atlantic cable, and one time a director of the Western Union, was asked by the Washburn committee:

"Could the Government manage the telegraph business as cheaply and efficiently as it is now managed?

"He replied: I have no doubt of it. The building and maintenance of competing lines, which the public interest does not require, by doubling the expense and dividing the receipts, entail heavy charges upon the public. If the Government would buy existing lines, an enormous saving would be effected, which would warrant a large reduction in rates while government as part of the postal system.

"Question by the committee: What knowledge have you in regard to the operations of the telegraph in other countries in connection with the post office?

"Answer. The telegraph is operated in connection with the post office in England, France, Germany, Russia, Austria, Italy, Belgium, Holland, Switzerland, and many other countries, and I believe the public are much better served than they would be if the lines were owned by competing companies." [8]

The conclusion of the committee upon all the evidence before it was:

"That this country is far behind the countries of Europe in furnishing the people with a cheap, swift, reliable, and comprehensive system of telegraphy, and that in those countries the telegraph is operated by the Government as part of the postal system." [9]

Neither your inventiveness nor methods of welcoming outside inventions entitles you to criticise public institutions on this score. You haven't a single great invention to your credit. The Page patent was the work of an examiner in the National Patent

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[1] More than 2-3 of the claims against the Post Office Department (under the acts of Mar. 17, 1882, and May 9, 1888) are promptly allowed by the department, those disallowed being cases in which there was no proof of loss, or the loss was caused by the negligence of the plaintiff (Postmaster General's Rept., 1895, p. 37). Government officers have no motive to deny justice to a claimant, or delay payment or make collection costly.

[2] "The reports of the different State tribunals show that the Western Union has availed itself of every trivial technicality and quibble of the law to evade its responsibility for the damages that have frequently been sustained by those who have dealt with it." (H. Rept. 955, p. 3.)

[3] I. T. U. Hearings, 1894, p. 41.

[4] Interview in the Voice, Aug. 29, 1895, p. 8.

[5] H. Rept. 114, p. 10.

[6] Harvard Quar. Jour. of Economics, July, '93.

[7] S. Doc. 294, May 26, 1896, pp. 2, 4.

[8] Field's letter ,H. Rept. 114, p. 69.

[9] H. Rept. 114, p. 53.

Office. Stearns was connected with the Municipal telegraph of Boston when he brought out his duplex system; Edison's quadruplex was an individual creation. The Craig system owes nothing to you, and the telephone knocked at your door only to find it totally inhospitable and meet with utter refusal of admittance. According to Delany, whose own splendid inventions you ignore, though they have brought him the highest awards in the gift of the Franklin Institute and other learned societies—P. B. Delany, inventor of the multiplex and perfecter of an automatic system that has transmitted and recorded over 8,000 words a minute over an experimental line, and will carry 2,500 words a minute over an ordinary copper wire from New York to Washington—this inventor, one of the greatest in the world, said to the Senate Committee on Post Offices and Post Roads: "It is significant that none of the improved methods of telegraphy now in use originated within the controlling telegraph organization."

He further said: "So anxious have the owners been to perpetuate the condition of the early days—the golden span from 1858 to 1870—when a half-million-dollar plant grew to one of twenty millions, that every innovation calculated to upset or interfere with their comfortable situation has been unwelcome. Every step in advance has been viewed as an encroachment on an exclusive domain, and each great improvement has been obliged to knock loud and long for recognition. * * * The opponents of Government telegraphy have invariably advanced the argument that Government control would discourage invention and improvement in systems. . If the policy of other countries is a fair criterion, this fear has no foundation. The British post office, the most ably managed concern in the world, has in its telegraph department encouraged inventors at home and abroad. The Hughes printing system, Stearns's duplex, Edison's quadruplex, the multiples, the automatic, and the telephone are all doing excellent work for the British post office to-day. * * * At least one-half of the entire traffic of the British telegraph is carried by the machine system. * * * In this country machine methods have not been used to any considerable extent. A wrong start has been adhered to persistently, owing in a great measure to overconstruction of competing lines and multiplication of wires; and so long as one company gathered all others in as fast as they came along, there were wires to spare, and therefore, as those in control argued, there was no use in increasing speed. Besides, wire afforded a basis for stock issuing. If this convenient mine could have been ignored, it would have paid the companies much better to have abandoned the poorly constructed lines and concentrated traffic in a comparatively small number of well-constructed lines of high conductivity operated by machinery. The companies can hardly be blamed now for not taking down the 30 poor iron wires and putting up 1 good copper conductor in their stead, even though it is now entirely practicable by machine working to make the single wire carry more messages for average distances than the 30 hand-worked wires, even when quadruplexed, so that four messages may go simultaneously."[1]

If you Western Union folks offer more encouragement to inventors than governmental systems, how is it that Delany and Patten and other great inventors should appear before congressional committees urging your nonprogressiveness as a reason for Government telegraphy? Curious, isn't it, that inventors should favor a postal telegraph—very curious, too, that our telegraphic inventors since Morse have received more than double the recognition and patronage in Europe that you have accorded them here. Curious that Morse himself should have favored Government ownership of the telegraph.

Among other things Mr. Delany proposes that Congress shall "authorize the Postmaster General to fix a maximum rate for telegraphic letters, and contract with the lowest bidders for their transmission, especially between cities separated by any considerable distance." The present systems of telegraph and long-distance telephone are not worked to anything like their full capacity and the Government might contract for the utilization of the "light load" hours in transmitting letters by electricity. The editor of the Electrical Engineer speaks favorably of the plan, remarking that "it is hard to see how goldbug, silverite, or populist can find any valid objection to a plan for quickening the mails in the ratio that the speed of electricity bears to that of steam, so long as the price is sufficiently low and the Government is not asked to spend a dollar."[2]

Mr. Delany further notes that in other countries the time of filing at the place of origin is noted on each message delivered, and says that our companies should be required to do the same. The editor of the Electric Engineer thinks this suggestion will be regarded as the refinement of cussitood by the owners of systems which have

[1] Testimony before the Butler Committee on Post Offices and Post Roads, S. Doc. 291, 54-1, pp. 1, 2, 5, 6. See also "Automatic Telegraphy," by P. B. Delany, electrical engineer, June 23, June 30, July 8, and July 22, 1897; his "Future of the electric telegraph," in the Engineering Magazine, Oct., 1895, and numerous pamphlets, which may be had by addressing the inventor at South Orange, N. J.

[2] Elec. Eng., July 22, 1896, pp. 80 to 83.

guarded this knowledge as a needless requirement, and placated public longing for precise detail by marking on each message the time of its receipt, enabling the public to keep compassionless tab on the messenger boy in his wanderings, but leaving to the widest range of speculation any estimate of how long the message has been on the way.

On the question of progressiveness, Mr. Delany also remarks that the British operator has had two considerable increases of pay since 1881, while his American brother has had four reductions and is insecure in his position, while good behavior warrants retention for the English operator, and he is not cut off in sickness nor turned down in old age, but retired on a pension proportional to his years of service. And he shows that with all the high wages and big interest on the telegraph debt there would be no deficit, but a profit, if the 5,400,000 press despatches averaging 120 words each that are carried at the rate of 13 words for a cent, were charged for at the average press rate in this country, which he says is half a cent a word, and if in addition to this, the 1,600 railway messages carried free in England and averaging 25 words in length, were charged for at the regular English rate of 1 cent a word, the British balance sheet would always show a very large profit.

Prof. Albert C. Crehore, of the scientific department of Dartmouth College, and Lieut. G. O. Squier, U. S. N., have been conducting a series of experiments in the rapid transmission of intelligence by electricity. "We conducted our experiments in England," says the professor, "because there we found offices better equipped with necessary instruments than any which could be obtained in this country, and being accorded the gratuitous use of the Government's wires, we had at our disposal any desired length of uninterrupted circuit. * * * Mr. Augustus Eden, a British Government engineer, assisted us. He was very enthusiastic over the degree of success obtained. * * * Our longest wire used extended from London to Glasgow, Aberdeen, Edinburgh, and back to London, a distance of 1,100 miles. Over this long line we sent and received simultaneously messages averaging a speed of over 4,000 words a minute."[1] Comment is unnecessary to show how much pains the English Government takes to discourage invention. The electricians claim that the new methods of automatic telegraphy will largely supplant the mail service, and that it will be possible to transmit matter enough for a whole newspaper in a single hour.

Telegraphing through the air is one of the things that inventors are studying. Mr. W. H. Preece, the late able chief of the Electrical Department of the British postal system was a leader in the investigation. In 1896 the cable broke between the mainland and the island of Mull. By setting up lines of wire opposite each other on the two coasts, Mr. Preece was able to telegraph by induction over the water and through the air a distance of four miles and a half, and 156 messages were sent in this way. Improved methods for such service being proposed by a young Anglo-Italian named Marconi, Mr. Preece welcomed the new ideas, described them in a lecture at Toynbee Hall as being superior to his own inventions, and said that he had been instructed by the postal department to spare no expense in testing them to the fullest degree.[2]

It is absurd to say that public enterprise is unfavorable to progress. Where is the art that has made more progress than the art of war, and yet that has been a public business for centuries. So great has been the encouragement to inventors it is said that the German Government gave the inventor of smokeless powder fifteen millions down and a million a month afterwards for a year or more.

In peaceful life what institution has shown a more progressive spirit than the post office?

Where is the private management that would have reduced its rates over 90 per cent and developed its service more than thirtyfold per capita in 50 years as the post

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[1] Boston Herald, Sept. 30, 1897, p. 12, col. 8.

[2] McClure's Magazine, March, 1897, p. 389, and Reports of English Postmaster General.

In the English Postmaster General's Report for 1898, I find the following: "A series of trials was undertaken with the Marconi apparatus with special reference to its adaptability for lighthouse, lightship, and other communications. * * * By means of the electro-magnetic system, devised by Mr. Preece, permanent communication has been successfully established between an outlying island and the mainland over a distance of 3½ miles. * * * This report has for five years recorded the progress made in constructing a system of communication between coastguard and lifeboat stations around the coastfor life-saving purposes. The system now extends to about 560 stations, 400 in England, 60 in Scotland, and 100 in Ireland."

I do not find any such record of progress in the Western Union report for 1898—no solicitude for public safety there, or development of wireless telegraphy, etc.

That same English report records three concessions and reductions costing £52,000 for the year. Another symptom that is absent from the Western Union report—the telegraph monopoly is not troubled with an attack of civic patriotism.

In 1896 the English Postmaster General reports considerable reductions in foreign rates, amounting to 10 to 66 per cent reductions from former rates.

In the same report the Postmaster General, after stating that the postal profits were over $17,000,000 in each of the years 1895–96 and 1896–97, added the significant words, "I am much gratified that the condition of the national finances has rendered it possible to devote a large portion of the postal surplus to the reduction of rates and to the improvement of service in rural districts." I do not find anything like that in Western Union reports—they know how to use profits in a different way from that.

office has done? Would a private monopoly of the post office have done that? Where is the private telegraph or railroad or express company that would have steadily increased the pay of its employees while wages were falling all around it, as has been the case with the post office? Would a private monopoly controlling the post office have done that? A private post would not have carried second-class mail below cost, and it would have been likely to adopt the district system, but the rest of the reforms that have been made and are soon to be made in the postal system would be foreign to the purposes of a private corporation—all sorts of discriminations and abuses would have crept in, lotteries would have been favorite patrons instead of excluded criminals, a post-office lobby would secretly have bought legislation for stockholders in the halls where the Postmaster General year by year calls public attention to the legislation needed to lift the post office one notch nearer perfection as an instrument for the service of the people, employees would have been squeezed in the press of competition, rates would have been kept sufficiently high to pay large dividends on watered stocks—think of a postal monopoly with a capitalization of six hundred millions.[1]

If you do not realize the comparative cheapness and progressiveness of the postal service you will be interested in the data that are given in the Postmaster General's Report for 1890. Appendix I, "History of the First Century of the Post Office." The department began in 1789, continuing the Confederation postal service, and was organized from year to year, the first permanent establishment being in 1794. The rates were:

Single letters—6 cents for distances under 30 miles, 8 cents for distances from 30 to 60 miles, 10 cents for distances from 60 to 100 miles, 12½ cents for distances from 100 to 150 miles, 15 cents for distances from 150 to 200 miles, 17 cents for distances from 200 to 250 miles, 20 cents for distances from 250 to 350 miles, 22 cents for distances from 350 to 450 miles, 25 cents for distances over 450 miles.

Double letters, double rates.

Triple letters, triple rates. (Think of 75 cents for a letter full of manuscript. No wonder literature was scarce.)

Packages at the rate of 4 single letters for every ounce (to mail a 10-ounce book or package that would cost 5 to 10 cents now, would at the old rates have cost $10). Not a daily mail existed anywhere—not over 100 post offices in the whole country—entire revenue less than $50,000, post routes 2,000 miles.

In 1835, when the locomotive began to replace the pony, there were 10,000 post offices, not over 20 of them with a daily mail—three millions of receipts and 113,000 miles of route.

At the beginning of the century it took 40 days to write from Portland to Savannah and get an answer [no chance for lightning speculations in those times], 32 days between Philadelphia and Lexington, Ky.; 44 days between Philadelphia and Nashville, etc. In 1810 the department had reduced the time to 27, 16, and 30 days, respectively.

In the last 30 years tremendous progress has been made, and is still continuing.

From a business of perhaps 1,000 letters a day (the estimate of the Postmaster General in 1789) we have over 8,000 pieces, letters, etc., dropping every minute into the postal boxes of the country.

The stage, the pony, and the messenger have been replaced by the steamboat, the railway, the electric postal street car, the pneumatic tube and the letter chute, and the addition of the telegraph and telephone strenuously urged by the department again and again. Lotteries have been excluded from the mails, the money-order system developed, house boxes established, civil-service regulations put in force, and if the department had its way we should have a 1-cent letter rate, a parcels post,

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[1] The Western Union reports its average annual expenses (1898 and 1899) at about eighteen millions, and its profits at about six millions. The post office expenses were about one hundred millions, indicating a volume of business about five and one-half times that of the Western Union, accepting their report as correct for the purpose of the present comparison—profits in the same proportion, or five and one-half times Western Union profits, would be thirty-three millions. If the post office were owned by a corporation similar to the Western Union the rates would be so arranged as to yield a profit of thirty or thirty-five millions a year on gross receipts of one hundred and thirty to one hundred and thirty-five millions. The Western Union and other corporations say that capitalization is to be fixed according to earning capacity (see Green's testimony, Blair Hearings, vol. i, p. 878). This test, using still the ratio of the volume of business in the post office to that reported by the Western Union would indicate a capitalization of about six hundred millions for a Western Union postal monopoly.

The probability is that these figures are too low, for the eighteen millions are not all legitimate operating expenses, the expense account of the post office under a private corporation, supposing it to carry the present mails, would be likely to be reported at about one hundred and twenty millions, with the profits at forty millions or more, and gross receipts of one hundred and sixty millions, and a capitalization of perhaps eight hundred millions.

It can hardly be doubted that rates would be high enough to yield a profit of at least thirty millions a year, which sum, at the lowest estimate, is saved to the people yearly by their ownership of the post office.

collection of bills and drafts by the postal savings banks, as in the most advanced systems of Europe.

Our postal history is a record of growing cheapness, swiftness, and efficiency we may well be proud of.

A fine illustration of the progressive spirit of a public service is afforded by the history of the French post during the Franco-German War. Let me quote you what the Encyclopedia Britannica says about it. (Art. Post Office, subhead France.)

The ingenuity of the French postal authorities was severely tried by the exigencies of the German War of 1870–71, but they proved themselves singularly successful in maintaining a correspondence, inland and foreign, under difficulties which were probably greater than any postal staff ever before had to encounter since posts were known. The first contrivance was to organize a pigeon service carrying microscopic dispatches prepared by the aid of photographic appliances. The number of postal pigeons employed was 363, of which number 57 returned with dispatches. The dispatches carried by the pigeons were, in the first instance, photographed on a reduced scale on thin sheets of paper, the original writing being preserved, but after the ascent of the twenty-fifth balloon leaving the city an improved system was organized. The communications, whether public dispatches or private letters, were printed in ordinary type and microphotographed onto thin films of collodion. Each pellicle measured less than 2 inches by 1, and the reproduction of 16 folio pages of type contained above 3,000 private letters. These pellicles were so light that 50,000 dispatches, weighing less than 1 gram, were regarded as the weight for one pigeon. In order to insure their safety during transit the films were rolled up tightly and placed in a small quill, which was attached longitudinally to one of the tail feathers of the bird. On their arrival in Paris they were flattened out and thrown by means of an electric lantern onto a screen, copied by clerks, and dispatched to their destination. This method was afterwards improved upon, sensitive paper being substituted for the screen, so that the letters were printed at once and distributed.

During the height of the siege the English postal authorities received letters for transmission by pigeon post into Paris by way of Tours, subject to the regulations that no information concerning the war was given, that the number of words did not exceed twenty, that the letters were delivered open, and that 5d. a word, with a registration fee of 6d., was prepaid as postage. At this rate the postage of the 200 letters on each folio was £40; that on the 18 pellicles of 16 letters each, carried by one pigeon, £11,520. Each dispatch was repeated until its arrival had been acknowledged by balloon post; consequently many were sent off twenty and some even more than thirty times. The second step was to establish a regular system of postal balloons, 51 being employed for letter service and 6 for telegraphic service.

To M. Durnouf belongs very much of the honor of making the balloon service successful. On the basis of experiments carried out by him, a decree of September 26, 1870, regulated the new postal system. Out of sixty-four several ascents, each costing on an average about £200, fifty-seven achieved their purpose, notwithstanding the building by Krupp of twenty guns, supplied with telescopic apparatus, expressly for the destruction of postal balloons. Only five were captured, and two others were lost at sea. The aggregate weight of the letters and newspapers thus aerially mailed by the French post office amounted to about eight tons and a half, including upwards of 3,000,000 letters, and besides the aeronauts 91 passengers were conveyed. The heroism displayed by French balloon postmen was only equaled by that of many of the ordinary letter carriers in the conveyance of letters through the catacombs and quarries of Paris and its suburbs and, under various disguises, often through the midst of the Prussian Army.

Chapter XVI.—Further Objections and General Summary.

SPECULATIVE USE OF TELEGRAPH—CONSTITUTIONAL QUESTION—SPHERE OF GOVERNMENT—POSTAL TELEGRAPH UN-AMERICAN—PATERNALISM—SOCIALISM—VESTED INTERESTS—IF THE WESTERN UNION OWNED THE POST OFFICE.

10. "Only a few use the telegraph—only about a million people, mostly speculators, stock jobbers, pool room gamblers, betters on horse races, etc. Are these the classes that need Government aid to furnish them a cheap telegraph?"[1] "Of what use would the telegraph be to farmers, mechanics, and the masses of the people generally."[2] "Did it never occur to the masses that they would not want to telegraph, even if they could do it at the cost of writing a letter?"[3]

[1] Dr. Norvin Green in Bingham hearings, p. 41.
[2] Mr. Loud in I. T. U. hearings, p. 9.
[3] Cincinnati Times Star, Mar. 3, 1890. I give references because it seems almost incredible that such objections should have been seriously made.

The Western Union and its allies appear to regard the farmers as a sort of oyster, slightly evolved perhaps but not yet arrived at the stage requiring conversation or communication with other living things of the same or different varieties. If a grower of wheat and potatoes, cattle and pork should want to know the state of the market at any time, as well as the speculator who buys his produce, or if his distant relatives should sicken or die, he would of course prefer the slowest means of communication obtainable—his nervous system is not calculated to bear rapid communication—he regards the locomotive and the telegraph as unnecessary innovations, and would rather have his letters go by stage.

The history of the telegraph in Great Britain and on the continent shows that as soon as rates come within reach of the masses they are eager to use the wires. In Belgium the 10-cent rate increased the social business 1,000 per cent in a very short time.[1] It is not to help the gamblers but to break their corner on the telegraph that we demand its nationalization.

You say few use the telegraph, only a million, mostly gamblers, and ask if a Government telegraph should be provided for them. It is strange that you should expect us to be misled by the statement that few use the telegraph, into the inference that few will use it when it is under Government control, especially as you have told us that if a postal telegraph were inaugurated "the messages offered for transmission would be from 10 to 50 times more than the wires could carry.[2] As you say that the people, mostly speculators, who use the telegraph don't care anything about the rates and use the wires all they wish to regardless of high charges, it looks as though you thought a cheaper service would induce nine to forty-nine million other folks to patronize the telegraph.

11. "A postal telegraph would be unconstitutional. The Federal Government has no powers except such as are granted to it in the Constitution, and the Constitution says nothing about the telegraph." [3]

Walter Q. Gresham, who was opposed to the postal telegraph, was nevertheless fair enough to admit its constitutionality, saying:

"Congress has the constitutional power and full authority to own and control telegraph lines. * * * If the telegraph be adopted as a branch of the postal service, all competition may be prohibited." [4]

Senator Edmunds says a postal telegraph is constitutional under either one of several heads, commerce, post, finance, or the war power. [5]

The United States Supreme Court has said it would be constitutional. In the Pensacola case (96 U. S., 1), the court used these words concerning the powers granted to Congress:][6]

"The powers thus granted are not confined to the instrumentalities of commerce or the postal service known, or in use, when the Constitution was adopted, but they keep pace with the progress of the country and adapt themselves to the new developments of time and circumstances. They extend from the horse, with its rider, to the stage coach; from the sailing vessel to the steamboat; from the coach and the steamboat to the railroad, and from the railroad to the telegraph, as these new agencies are successively brought into use to meet the demands of increasing population and wealth."

Judge Clark and John Wanamaker have both written strong statements showing the constitutionality of a Government telegraph.[7] The Western Union admitted the right of the Government to own the telegraph when it accepted the terms of the law of 1866 providing for purchase of the lines after five years at the option of the Government. The Government owned the first telegraph line built in this country, and owns some military lines to-day. During the rebellion and the Mexican War, thousands of miles of telegraph were built by the Government for its own use,[8] and it has built lines in the West since the war. The Rayner committee says: "There is so little in this constitutional objection that it is hardly worth consideration. Every lawyer who has argued the question has admitted the constitutionality of the measures, and no one but Dr. Green has denied it." [9]

If a postal telegraph were not constitutional, it would have to be made so by an amendment, that's all. But the truth is that it is the absence of a postal telegraph that is unconstitutional.[10]

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[1] Wanamaker's Arg., p. 10.
[2] Testimony of the president of the Western Union in H. Rept. 114, p. 134.
[3] Dr. Green in North American Review, 137-422, and Bingham report, Green's second hearing, p. 4.
[4] Postmaster General's Report, 1883, p. 34.
[5] S. Rept. 577, Pt. II, p. 3.
[6] Chief Justice Waite, 96 U. S., p. 9.
[7] Judge Clark in The Arena, Dec. 95, p. 53 et seq., and in the American Law Review, reprinted in S. Doc. 205, 54-1; John Wanamaker in his argument of 1890, pp. 146-9.
[8] I. T. U. hearings, p. 7.
[9] H. Rept. 955, 50-1, pp. 2-3.
[10] See Ch. I of this book, and H. Rept. 187, 28-2.

12. "Telegraphy is out of the Government's sphere. It is not the Government's business."

That's just what we complain of. We want the Government to do that business.

"I mean that telegraphy is not within the proper sphere of governmental action."

We are so glad to meet some one who knows just what the proper sphere of government is. By what test do you determine that the telegraph is outside the said sphere?

"Well, I don't think it would be best for the Government to go into the telegraph business."

Best for whom?

"Best for the Western Union."

13. "A postal telegraph is a European institution; it is un-American; we do not want to imitate the monarchical systems of the Old World." [1]

Neither the multiplication table nor the Ten Commandments originated in America, but they are regarded as reasonably good institutions, and capable of doing good service in the New World, though it must be confessed that the Western Union is consistent even here in its aversion to things that come to us from the Old World.

The present objection need not be much argued, for in fact the postal telegraph is an American institution, dating 1844. (See Ch. I, note 6, par. 4.)

If it is necessary that we should not manage our affairs according to methods in use across the sea, then we ought not to continue our public post. It seems probable that economy and good business are much the same whatever the form of government. Further, it is clear that several nations that own their telegraphs are quite as democratic as we are.

14. "The plea of analogy with the post office does not hold water. A telegram is different from a letter—one is sealed and the other is open." [2]

Well, the analogy may not hold as much water as Western Union stock, but it is a pretty good analogy for all that. As for the difference stated, some letters are not sealed, and some telegrams are sealed, in cipher—they are identical in the essential respect that both are transmissions of intelligence. I wonder that the Western Union did not base its argument on the fact that telegrams are usually written on yellow paper, while letters are generally white—it ought not to lose such opportunities of strengthening its position.

15. "It will be paternalism."

No; it will be fraternalism. (See Ch. I.)

16. "It is socialism."—Is that so?

Well, then, Gen. Grant and Charles Sumner were rank socialists; and so are Senators Edmunds, Dawes, Hill and Butler, John Sherman, Mary A. Livermore and John Wanamaker, Henry Clay, Hannibal Hamlin, James Gordon Bennett, Francis A. Walker, Dr. Lyman Abbott, Prof. Ely and Cyrus W. Field must also be added to the list of socialists, and, in fact, about all our eminent citizens for the last half century must be listed with them. Prof. Ely says he isn't a socialist, but he believes very strongly in Government ownership of the telegraph, and you say that is socialism, so that Prof. Ely must be mistaken; he is a socialist, after all. Gladstone and Queen Victoria, the Commons and the House of Lords are all socialists, for they believe in a Government telegraph, and that you say is socialism. The Emperor William, too, is a socialist if your plea is correct, and the Czar of all the Russias and the Sultan and all the rest of the crowned heads.

Suppose what you say were true, and that "a Government telegraph were socialism," would it hurt the argument for a public telegraph? Not until you show that socialism is a bad thing—not until you show that this particular sort of socialism is bad—drinking may be bad if it is whisky you drink, but not if it is water. As your argument stands it is simply a plea for socialism—no one could ask a better argument for socialism than the statement that "a Government telegraph is socialism," for a Government telegraph has been proved beyond question to be a magnificent benefit.

17. "Our vested rights will be injured by a Government telegraph. It is inequitable for the Government to destroy the value of our property by competition. The companies have risked their capital to give the country a good telegraph system, established under express congressional legislation, and governmental competition would be an arbitrary and unjust interference with vested rights. If there must be a postal telegraph, the Government is in duty bound to buy us out under the provisions of the law of 1866." [3]

You are wrong about that. The law of 1866 did not say that the Government must buy your lines; it said that "the United States at any time after five years may purchase, etc." Even if the agreement of 1866 had said must you could not claim its

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[1] Wm. L. Wilson, January Arena, 1896, p. 248.
[2] Western Union argument, cited in S. Mis., 79, 42-3, p. 5.
[3] The president of the Western Union in the North American Review, vol. 137, p. 422.

protection now, for you have been a party to the violation of the compact not merely once but many times by disregarding the condition against the consolidation of telegraph companies.[1]

The Government competes with the express companies in the parcel post, and with the banks in its money-order system, and it has an equal right to compete with the telegraph to any extent it thinks best. Senator Edmunds sees no injustice in such competition,[2] and courts of justice universally recognize and enforce the right of the Government to enter into competition with established private enterprises, whether resting on a legislative grant, if not exclusive, or on common law rights, and whether the Government enterprise simply diminishes the value of its private rival, or completely destroys it.[3]

For our own part we deplore competition as an evil only to be resorted to in order to avert a greater evil. If you will sell at a fair price, it would be wise to buy. But even then it can not be claimed as your right, for you have made enormous profits, have received many times over all you ever put into the plant, have built much of it out of your profits,[4] besides paying big dividends, and in all fairness the lines really belong to the people and not to you at all.[5]

Perhaps you will say, "The stock of the Western Union is not all in first hands; it has been bought by third parties; innocent parties."

When the innocent lie down with the guilty they must suffer the consequences.

"They have not robbed the public."

They have associated with others who have robbed the public.

"The public has stood by and let this thing go on and allowed innocent parties to invest."

It is doubtful if there are any innocent stockholders, for all had reasonable notice of the notorious policy of the company.[6] The public has been defrauded by the collusion of its agents and the defendants, and the stockholders are particeps criminis, accessories after the fact at the least.

If a man should pay one hundred thousand for a piece of land whose owner had realized ten thousand a year by putting his hand in the pockets of passersby, and the Government, wishing to buy that land, found it was only worth twenty thousand for any legitimate use, would you think the Government ought to pay one hundred thousand? The Government has a right to stop the robbery, and then the land will only bring twenty thousand even in the markets of the highwaymen. And the Government has a right to do the same thing with the Western Union by passing a law fixing rates at a reasonable figure. It might even go further and declare the National telegraph franchise forfeited for violation of conditions, and then the market value of the property of the companies would fall far below the cost of duplication.

18. When I was a boy I made a collection of birds' eggs. One who did not understand the business might have thought there was considerable heft to those eggs, whereas in reality there was scarcely any weight at all—practically none—substantially nothing—only some empty shells. The Western Union's arguments remind me of those eggs. To look at them casually you might think they were solid, but come to examine them closely you find they are every one hollow.

19. If you, the defendant monopoly, owned the post office as you now own the telegraph, had it capitalized at six or eight hundred millions, charged double rates or more, employed boys to distribute the letters, squeezed the postmasters and railway clerks down to $30 or $40 a month, had a big strike now and then, stopping the mails all over the Nation, kept a glorious postal lobby at Washington, distributed postal franks to legislators and favorites, gave postal rebates to others, excluded from the mails all papers that opposed your views, made a batch of millionaires every few years from

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[1] The act granted national rights on condition that the rights and privileges hereby granted shall not be transferred by any company acting under this act to any other corporation, association, or person. (See Ch. I.)

[2] See his speech in the Senate, Jan. 20, 1883.

[3] Turnpike Co. *v.* The State (3 Wall., 210); Charles River Bridge *v.* Warren Bridge (7 Pick., 344; 11 Peters, 420, 536, 546, 549). Where a second bridge was established alongside the old one, and the second was made free, thereby completely destroying the value of the first to its owners, held by the supreme court of Massachusetts that the said owners had no remedy—they took their franchise subject to the right of the State to grant other franchises or erect other structures.

The Western Union franchise is not exclusive. Chief Justice Parker said in 7 Pick., 457: "In many cases the legislature have established new turnpikes, some nearly parallel with and diverting travel to the injury and sometimes to the ruin of former ones, and never a question has existed of the constitutionality of such acts, but many adjudications have been based on their validity."

[4] S. Rept. 577, Pt. II, p. 57.

[5] The Hon. John A. Anderson says: "Beyond all question the amount paid by the Government to telegraph companies (without mentioning the overcharging of the general public) has been far greater than the cost of building all such lines on the Continent. * * * I have no doubt that the amount received from the National Treasury by the Western Union in any five years has been greater than the actual cash paid in by its stockholders." (Speech in the House, Mar. 1, 1884.)

[6] See debate between Palmer and Hubbard, S. Rept. 577, Pt. II, p. 61.

the postal profits, etc., and the people protested, signing petitions by the million, demanding the nationalization of the post office, and committee after committee investigated the subject and reported in favor of a Government post office, and backed up their reports by showing that the postal service was in Government hands all over the civilized world outside of the United States, and that the results were most beneficent—cheap postage, good service, vastly increased communication, stimulation of business, development of social intercourse, etc. If this were the situation, I suppose you would make exactly the same objections to public ownership of the post office that you now make to public ownership of the telegraph; you would hold up your index finger in fateful warning and declare in sepulchral tones that a national post office would be socialism, paternalism, and beaurocracy, an arbitrary and unjust interference with your right, of private property, you would tell us that the postal service is outside the sphere of Government and that what the "effete monarchies" of the Old World were doing was no guide for free America, forgetting to tell us that the Republics of Europe and Australia were doing the same thing as the effete monarchies; you would paint the dangers of patronage in glowing colors, and when we spoke of the remedy, civil service reform, you would go right on talking about the patronage as though you hadn't heard or didn't know what civil service meant; you would say that distances and wages were greater here than in Europe, and therefore the cost of the mail service was much greater and you had to charge double the European rates, whereas we know the fact is that the service costs less per unit in the United States than in Germany, France, Austria, Switzerland, or most any other European country, and less than the average for all the countries of Europe in spite of our wages and distances,[1] you would tell us that anyway, distance or not, the Government would work at a loss, could not work as cheaply as you, and would make a deficit every year, and yet you know full well that the post office would cost the people thirty to sixty millions a year more than it does, deficit and all, if you had control; there would be not merely the ninety-five millions they now pay in rates and the six millions or so they pay in deficit to make up the loss on excessive payments to the railroads, but beyond all this there would be thirty to sixty millions to pay for your profits, expressed and suppressed; the people would have to pay at least forty to fifty millions deficit beyond the present postal rates if you had the post, only they would pay it in higher rates and not under the name of deficit; you would say that only a small part of the people used the post office, mostly lottery men and speculators, and it wasn't worth while for the Government to aid such people with a cheap post, and if we said that the reason so few used the post was that letters were 5 and 10 cents instead of 2 cents, as in Europe, and pointed to the great correspondence of the masses there, you would maintain a discreet silence till a new committee came along, and then spring the same old sophistries on it; and you would wind up by saying that if the Government must go into the postal business it ought to buy you out at the inflated value fixed by yourself in reference to the earning capacity of the business, which earning capacity is in itself determined by the growth of the country and your arbitrary power to fix charges; and after your profound argument you would show your estimate of its validity and convincing power by "seeing" a sufficient number of Congressmen and appealing to their minds and emotions—their affections (for themselves) particularly—in such a way as to secure a serene majority in your favor in spite of any storm of patriotic eloquence and overwhelming mass of fact that genius and justice could pour upon a recreant House or Senate.

20. May it please the court, the plaintiffs will close the case with a brief summary of the most important points they have made:

A private telegraph means—
High rates.
Insufficient facilities.
Poor service.
Resistance to progress.
Watered stock.
Doctored accounts.
Speculation in stocks and markets.
Discrimination in rates and service.
Interference with the freedom of the press.
Oppression of employees.
Strikes.
Power for private uses.
Manufacture of millionaires.

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[1] See Ch. IX.

Small use of the telegraph, except by speculators, thereby retarding the growth of business and civilization.

Taxation without representation and for private purposes.

Spasmodic competition and blackmailing schemes, wasting industrial resources in building needless lines, etc., always coming back to a bigger and more grasping monopoly.

A giant monopoly creating and sustaining other monopolies for private aggrandizement.

Possible weakness in war.

Debasement of politics and government.

Antagonism of interest.

A public telegraph means—

Low rates.

Extended facilities.

Improved service.

Welcome to progress.

No water.

Honest bookkeeping.

No telegraph gambling.

Equal rates and service to all.

A guaranty of a free press.

Elevation of employees.

No strikes.

Power for public uses.

Diffusion of wealth.

Large use of the telegraph by the people, thereby aiding the development of intelligence, social cohesion, and commercial prosperity.

Service at or near cost, and profits, if any, to go to the people.

Harmonious and economical cooperation.

A business owned by the people and managed by them and for them.

Strength in war.

A step toward better and purer government.

Unity of interest.

Public sentiment in the United States is overwhelmingly in favor of a national telegraph.

Eminent statesmen, distinguished citizens, renowned inventors and electricians, celebrated capitalists and famous men of business have championed the cause.

The voice of history and the experience of the civilized world speak eloquently in its favor.

Annual Report of the Directors of American Telephone and Telegraph Co. to the Stockholders for the Year Ending December 31, 1911.

Officers.—President, Theodore N. Vail; vice presidents, Edward J. Hall, U. N. Bethell, B. E. Sunny, William R. Driver, H. B. Thayer, N. C. Kingsbury, Charles P. Ware; treasurer, William R. Driver; secretary, Charles Eustis Hubbard; comptroller Charles G. Du Bois; general counsel, George V. Leverett; chief engineer, John J. Carty.

Directors.—Charles W. Amory, Thomas B. Bailey, George F. Baker, Francis Blake, Harry H. Brigham, Alexander Cochrane, T. Jefferson Coolidge, jr., W. Murray Crane, Henry P. Davison, Rudolph Ellis, Norman W. Harris, Henry L. Higginson, Henry S. Howe, Charles Eustis Hubbard, Lewis Cass Ledyard, John J. Mitchell, William Lowell Putnam, Sylvanus L. Schoonmaker, Eugene V. R. Thayer, Theodore N. Vail, Frank E. Warner, John I. Waterbury, Moses Williams, Robert Winsor.

New York, *March 20, 1912.*

To the stockholders:

Herewith is respectfully submitted a general statement covering the business of the Bell System as a whole, followed by the report of the American Telephone & Telegraph Co., for the year 1911.

BELL TELEPHONE SYSTEM IN UNITED STATES.

Subscriber stations.—At the end of the year the number of stations which constituted our system in the United States was 6,632,625, an increase of 749,906, including 306,403 connecting stations; 2,158,454 of these were operated by local, cooperative, and rural independent companies or associations having sublicense or connection contracts, so-called connecting companies.

Telephone toll stations.—The Bell telephone toll lines of the United States now reach 70,000 places, from many of which a telegraph message can be sent. The extent of the system is best realized by comparison with less than 65,000 post offices, 60,000 railroad stations and regular telegraph offices at about 25,000 places.

Wire mileage.—The total mileage of wire in use for exchange and toll service was 12,932,615 miles, of which 1,290,403 were added during the year. Of the total mileage nearly 11,000,000 miles were exchange wires, and 2,000,000 toll wires. These figures do not include the mileage of wire operated by connecting companies. Of this total wire mileage 6,831,667 is underground, including 411,406 miles of toll wries in underground cables. The most important development is in the Boston-Washington subway, now completed with the exception of drawing the cable into the Providence-New Haven section. This subway will be about 450 miles in length, and contain about 2,100 miles of single duct and 79,000 miles of wire in the first cable.

Traffic.—Including the traffic over the long-distance lines, but not including connecting companies, the daily average of toll connections was about 645,000, and of exchange connections about 23,484,000, as against corresponding figures in 1910 of 602,500 and 21,681,500; the total daily average for 1911 reaching 24,129,000, or at the rate of about 7,770,000,000 per year.

Traffic of the United States and Europe.—Instructive as it would be to compare the traffic of the two other branches of transmission of intelligence—the mail and the telegraph—with the telephone traffic of the world, such a comparison would only be speculative on account of the lack of statistical material. There is, however, sufficient statistical information to permit a comparison of the traffic of these services, both in the United States and in Europe, during the year 1909. The result is as follows:

Type of message.	Europe.		United States.	
	Number during 1909.	Per cent of total, Europe.	Number during 1909.	Per cent of total, United States.
First class mail matter	15,387,000,000	74.4	8,793,000,000	40.9
Telegrams	345,000,000	1.7	98,000,000	0.4
Telephone conversations	4,937,000,000	23.9	12,617,000,000	58.7
Total	20,669,000,000	100.0	21,508,000,000	100.0

In other words, although Europe has about three and a half times the telegraph traffic of the United States, and nearly twice the first-class mail traffic, it has only one-third the telephone traffic of the United States.

The use of the telegraph in Europe was about 2 per cent of the mails, while in the United States it was but 1.2 per cent the greater efficiency and distribution of the telephone causing the difference.

Plant additions.—The amount added to plant and real estate by all the companies, excluding connecting companies, constituting our system in the United States during the year 1911, was $55,660,738 distributed as follows:

Real estate	$3,411,992
Equipment	18,282,765
Exchange lines	20,548,080
Toll lines	11,624,173
Construction work in process	1,793,728
Total	55,660,738

Plant additions of previous years.—The amounts added in 12 years have been as follows:

1900	$31,619,100	1906	$79,366,900
1901	31,005,400	1907	52,921,400
1902	37,336,500	1908	26,637,200
1903	35,368,700	1909	28,700,100
1904	33,436,700	1910	53,582,800
1905	50,780,900	1911	55,660,700

Making a total for the 12 years of $516,416,400.

Construction for the current year.—Estimates of all the associated operating companies and of the American Telephone & Telegraph Co. for all new construction

requirements in 1912 have been prepared. It is estimated that about $56,000,000 will be required for current additions to plant in 1912, of which amount some $30,000,000 will be provided by the existing and current resources of the companies. All who are responsible for these expenditures are working in complete understanding of these estimates and the limits set on their expenditures.

Maintenance and reconstruction.--During the year $58,840,000 was applied out of revenue to maintenance and reconstruction purposes; of this, oxer $12,000,000 was unexpended for those purposes.

The total provision for maintenance and reconstruction charged against revenue for the last nine years was over $342,300,000.

Reserves and depreciation.—While commissions and all thorough investigators are agreed that provision must be made out of current revenue for depreciation and future replacement of plant, there seems to be some tendency on the part of others to question any accumulation of reserves.

To make adequate provision for future contingencies it would seem to be plain that in an increasing business there must also be an increasing reserve.

There seems to be a tendency to insist that "betterment" of every character shall be represented by capital issue, and that depreciation reserve should be determined with precision, and that it, and all reserves beyond it represent excessive gross charges; that is, gross charges greater than are necessary for the legitimate purposes of the company.

Reserves are a provision for deterioration and obsolescence of plant beyond that which can be covered by current maintenance and currend replacements, and also for deterioration of assets and for fluctuations in gross and net revenue caused by varied business conditions. If there were an exactly ascertainable conditions, with which all practice is in accord, many of the difficulties and differences of opinion connected with this question would disappear.

If the plant were kept in the highest possible state of efficiency by the expenditure of current revenue for repairs, maintenance and replacements, sufficient to maintain the plant at the highest possible efficiency, it could be operated perpetually and would never have to be replaced. Between this, and maintenance which barely keeps the plant in service, there is a wide margin, and in this margin is the origin of nearly all the differences as to cost of service, and in it is the opportunity to show large apparent profits at the cost of the future of the plant.

There are, however, in the conduct of business many conditions and possibilities which can not be met out of current net revenue and should not be met out of capital, but which if not provided for in some way would put all industrial companies upon a speculative basis.

There is that obsolescence which comes from revolutionary improvements necessitating wholesale replacements of obsolete apparatus or plant, such as the replacement of overhead systems by underground systems, or such as took place when the present method of operating was introduced. There are those fluctuations in net revenue caused by business depression which can not be overcome by immediate reduction of fixed charges, overhead expenses or operating costs. There is that constant tendency to increase in wages and cost of material, that tendency to increase in operating expenses and capital charges caused by the constant demand for increased efficiency or service, that demand for extensions, productive and unproductive, and that call for improvements in plant, equipment and apparatus. There is that increase in costs of operating, in greater ratio than the increase in business, peculiar to some branches of the telephone service.

These and many other possibilities always confronting industrial and public servcei undertakings must be provided for. They are not the subject of capital expenditures, and can only be provided for by an accumulating surplus and reserves invested in productive plant or securities. If these are not provided for, trouble if not disaster or destruction is inevitable.

Any practice which does not, at the cost of revenue, pass the property on from the present to the future in at least as good a condition as received from the past, is a mistaken practice; it is using capital for the benefit of the present at the expense of the future.

The main objections urged against an accumulating surplus are the following:

1. That it is provided out of excessive charges to the public for service.
2. That it tends to extravagance of operation, on the theory that close margins tend to greater economies.
3. That it affords a way of giving exorbitant and unreasonable dividends to the shareholders by some form of distribution of the surplus from time to time.

The answer to the third objection depends somewhat on the treatment and ultimate disposition of the unappropriated surplus reserves.

If these reserves are to remain as assets of the company, indivisible, inviolable and inalienable except for the purposes above mentioned, invested in productive property, it removes the strongest and only really tangible objection to surplus of the character herein advocated.

So far as the American Telephone & Telegraph Co. and associated controlled companies are concerned, the third objection can be dismissed with the statement of their policy, which is as follows:

Except where in the extension of business extraordinary risks are taken which entitle them to some extra profit in consideration of such risks, or the net returns have not been sufficient to make an adequate return, if any, on the capital, the American Telephone & Telegraph Co. and associated utilities controlled by it are and will be satisfied with reasonable average returns on their outstanding capital obligations, which, compared with other business investments, should be about 8 per cent, and will not expect or encourage any expectation of more than this; and in those excepted instances above referred to, they will only ask for that reasonable return which any equitable commission or court would award them.

As to the second objection, the most important and controlling factors of all charges for service are fixed charges and operating expenses. All public-service companies not now will soon be under Government control and regulation, and all charges and expenditures will be under the close scrutiny of these regularly constituted bodies. If this does not protect against extravagance, nothing will.

In answer to the first objection, the many and marked peculiarities of the telephone and telegraph as distinguished from other public utilities justify ample surplus reserves.

Any new railroad or plant of local transportation company, gas or electric light mains must be constructed at least of a certain minimum standard or capacity, and as the cost of construction does not increase in nearly the same ratio as the increase in capacity, a large increase of business is always provided for in the building of any new plant. Another important consideration in the size of plant constructed is that in emergencies large overloads can be carried on plants of this character for considerable periods. For these and other reasons additional capital expenditure is not continuous, seldom, if ever, is imperative; financing arrangements can be definitely anticipated for long periods and adapted to the most favorable conditions and times.

With the telephone and telegraph the case is entirely different. Except below relatively small minimum units, the telephone plant is built according to the business that is expected in the immediate future, and the plant necessary for the development of business can be added as needed, and to save charges on idle plant this is done. It is sometimes advantageous to anticipate growth, and it is often done, but only when the saving in construction costs and other advantages more than balance the cost of carrying the idle plant. There can be no overload in the telephone business; the capacity of the plant must be equal to the peak of the business and to all possible emergencies. Each increase in business calls for an additional telephone circuit and each telephone circuit calls for additional capital expenditure, and under the requirements of the business all demands for extension of service are imperative and must be met at once.

This makes necessary regular periodical provisions for financing, which must be met regardless of the general business conditions.

Another and a marked disadvantage of the telephone business as compared with other public services is that the capital expenditure for gas or electric light plant is confined to generating plant and distributing mains; the customer's connection from street to house and the inside house installation are done with the capital and at the cost of the customer.

With the telephone each additional subscriber calls for capital expenditure from the central office to the house or place of business, and for all interior installation and wiring. This interior installation, representing large expenditure, is a burden not only on the capital but on the net revenue of the telephone, from which other service companies are free. For every 100,000 stations gained in 1911, 272,000 stations were installed. All the cost of the 172,000, over and above the salvage, which is variable and small at best, is a charge upon revenue and a general charge on all permanent subscribers, which would not be the case if the interior installation were at the expense of the subscriber.

All the advantages of an unexpended surplus reserve, which remains invested in an inalienable asset of the company, namely, in productive plant, accrue to the public by the reduction of revenue which it is not necessary to earn to meet the capital charges, as the plant which is constructed out of these surplus reserves does not represent capitalization.

Among the more important advantages to a company of a large surplus represented in the fixed assets are the following:

It strengthens the company's credit, enabling the company to make its interest and dividend payments uniform and dependable.

It enables the company on the strength of this credit to obtain its capital requirements on the most favorable terms.

It enables the company to ride out commercial and financial disturbances which might otherwise cripple or destroy it.

It enables the company to maintain at all times the highest state of efficiency in its operation, which would be impossible for any company which is obliged to adjust its more or less inflexible operating expenses to the constant and inevitable fluctuations of business.

It is a reservoir, as it were. which, supplied by a fluctuating stream of gross revenue, enables the company to maintain even and uniform disbursement for service, maintain a uniform operating organization, and that high state of efficiency which can result only from a permanent operating force.

To reduce rates as fast as any surplus is created, to forbid any application of revenue to the betterment of plant, to insist that new capital shall be provided for such purposes, would never be thought of in any private business and should not in any corporate business, particularly public utilities subject to other regulation and control than that of actual ownership. In individual or partnership business all revenue beyond stipulated amounts is left in the business, is a reserve, and in addition there is that reserve consisting of the entire assets of the individual. This is the basis of business credits.

The only sound conclusion that can be reached after full consideration of all the various phases and factors of the problem is that ample reserves should be provided to meet not only probable happenings but possible happenings, and that such reserves should be so invested that whatever increment or revenue is to be derived from the amounts unexpended or not used for the purposes intended will go to the public in reduction of charges for or in improvement of service, and that the value of a public-utility plant should be represented by a relatively small percentage of outstanding securities calling for fixed charges.

No expenditure which does not produce increased net revenue should be capitalized.

Any public-service plant which is represented by relatively small outstanding capital obligations is stronger, can better meet its public obligations, and so long as the surplus is inviolable and inalienable as above defined, and the company under Government control and regulation, the greater the ratio of surplus and reserves to plant, the nearer we get to all the supposed advantages of public ownership without any of its risks, while retaining all the advantages of private management.

Operating results for the year.—The following tables show the business for the year of the Bell telephone system, including the American Telephone & Telegraph Co. and its associated holding and operating companies in the United States, but not including connecting independent or sublicensee companies, nor the Western Electric Co. and Western Union Telegraph Co. except as investments in and dividends from those companies are included, respectively, in assets and revenue. All intercompany duplications are eliminated in making up these tables, so that the figures represent the business of the system as a whole in its relations to the public:

Bell telephone system in United States. Comparison of earnings and expenses, 1910 and 1911.

[All duplications, including interest, dividends, and other payments to American Telephone & Telegraph Co. by associated holding and operating companies, excluded.]

	1910	1911	Increase.
Gross earnings	$165,612,881	$179,477,998	$13,865,117
Expenses—operation	54,235,449	60,085,425	5,849,976
Current maintenance	25,763,082	30,184,522	4,421,440
Depreciation	26,264,927	28,655,832	2,390,905
Taxes	8,355,015	8,965,922	610,907
Total expenses	114,618,473	127,891,701	13,273,228
Net earnings	50,994,408	51,586,297	591,889
Deduct interest	11,556,864	13,610,860	2,053,996
Balance net profits	39,437,544	37,975,437	[1] 1,462,107
Deduct dividends paid	25,160,786	25,966,876	806,090
Surplus earnings	14,276,758	12,008,561	[1] 2,268,197

Combined balance sheets, 1910 and 1911.

[Duplications excluded.]

	Dec. 31, 1910.	Dec. 31, 1911.	Increase.
Assets:			
Contracts and Licenses	$2,943,381	$2,943,381	.....
Telephone plant	610,999,964	666,660,702	$55,660,738
Supplies, tools, etc	20,987,551	20,749,568	[1] 237,983
Receivables	26,077,802	32,916,127	6,838,325
Cash	27,548,933	41,878,140	14,329,207
Stocks and bonds	64,766,089	66,777,231	2,011,142
Total	753,323,720	831,925,149	78,601,429
Liabilities:			
Capital stock	344,645,430	379,727,832	35,082,402
Funded debts	224,791,696	241,032,822	16,241,126
Bills payable	42,566,943	41,198,431	[1] 1,368,512
Accounts payable	21,721,125	23,382,438	1,661,313
Total outstanding obligations	633,725,194	685,341,523	51,616,329
Surplus and reserves	119,598,526	146,583,626	26,985,100
Total	753,323,720	831,925,149	78,601,429

[1] Decrease.

The gross revenue collected from the public in 1911 for telephone service by the Bell system—not including the connected independent companies—was $179,500,000; an increase of nearly $14,000,000 over last year. Of this, operation consumed $60,000,000; taxes, $9,000,000, or 1½ per cent on the outstanding capital; current maintenance, $30,200,000; and provision for depreciation, $28,700,000.

The surplus available for charges, etc., was $51,600,000, of which $13,600,000 was paid in interest and nearly $26,000,000 was paid in dividends.

The total capitalization, including inter-company items and duplications, of the companies of the Bell system is $1,186,639,036. Of this $524,679,951 is owned and in the treasury of the companies of the Bell system. The capital stock, bonds, and notes payable outstanding in the hands of the public at the close of the year were $662,000,000. If to this be added the current accounts payable, $23,400,000, the total outstanding obligations of every kind were $685,400,000, as against which there were liquid assets, cash and current accounts receivable, of $74,800,000, leaving $610,600,000 as the net permanent capital obligations of the whole system outstanding in the hands of the public.

Against these obligations, the companies had actual, tangible property, not including franchises, patents, or good will, which cost $754,200,000, an excess of 23 per cent over the obligations.

For the year there was an increase in assets of $78,600,000, of which $55,600,000 represented current additions to plant, including the necessary real estate. This increase of $78,600,000 is represented by $51,600,000 increase in outstanding obligations for the whole system, and an increase in surplus of $27,000,000. Of this $27,000,000 surplus about $4,500,000 represents premiums on capital stock received through conversion of bonds.

This surplus, which does not include any of the intangible though necessary and valuable assets, is invested in productive property not represented by any capital charges, the revenue from which enables the company to maintain its efficiency and at the same time make concessions to the public in the way of gross charges.

Average operating units of associated operating companies.—The table on page 17 shows average operating revenue and expenses per station, operating ratios, unit plant costs, etc., of the associated operating companies (not including the American Telephone & Telegraph Co.'s long-distance lines), for the years 1895, 1900, 1905, 1910, and 1911.

It will be noted that there has been a steady decrease in revenue per subscriber's station, so that now the average subscriber pays for a higher grade, more comprehensive service less than half what he paid 16 years ago for the much less useful service that was then possible.

The use of the subscriber's station for the unit of telephone statistics is unsatisfactory, as the relative character of the subscriber's station is variable, but it is the only unit that gives any idea of growth or comparison and has been used so long that until something better is found it will to a certain extent answer the purpose.

This reduction in cost of service to the user has made it possible for every one who needs a telephone to have one and to get the great advantage of being within reach of everybody by telephone.

Although there has been a decrease in cost of operation every year till 1910, an increase in 1911 over 1910 is to be noted. This is mostly accounted for by increased operators' wages. This item will increase steadily not only from the general causes which influence wages, but from the fact that each year the growing complexity of telephonic apparatus and equipment, and the demands for improved service, make greater demands on the capacity and efficiency of our employees.

The greatly decreased plant investment per station to which attention has been called in previous annual reports has been still further reduced during the year to $141, notwithstanding the extensive additions to toll lines and the continued increase in the proportion of wires underground. This low cost of plant and a decreasing maintenance cost are only made possible by the central supervision of engineering and manufacturing of the Bell System and by advance construction on a large scale.

Western Electric Co.—The Western Electric Co. shows marked improvement in operation during the year. The concentration of its manufacturing operations at Hawthorne, not entirely completed, already shows advantageous results. The gross business for the year was $66,212,000. The foreign business of the company continues favorable. The instruments and apparatus used by the Bell System, manufactured by this company, continue to be the standard the world over.

Disposition of gross revenue of Bell system, year 1911.—The diagram shows the distribution of the gross revenues received from the public. Probably no industry of national scope pays back to the same communities a larger percentage of the revenues than it receives from them. Salaries, wages, taxes, maintenance and other operating expenses are distributed very closely in proportion to the amounts paid for telephone service, while the amount paid in dividends and interest, 19 per cent of the whole, was distributed to over 100,000 individuals distributed over the whole country.

Average operating units of associated operating companies, 1895 to 1911.

[This table covers the companies owning all the exchanges and toll lines of the Bell telephone system, except the long-distance lines of American Telephone & Telegraph Co.]

Average per exchange station.	1895	1900	1905	1910	1911
Earnings:					
Exchange service	$69.75	$44.68	$33.31	$31.28	$30.85
Toll service	11.35	12.60	9.95	9.47	8.98
Total	81.10	57.28	43.26	40.75	39.83
Expenses:					
Operation	29.15	21.63	16.96	15.14	15.36
Taxes	2.23	2.37	1.49	2.00	1.94
Total	31.38	24.00	18.45	17.14	17.30
Balance	49.72	33.28	24.81	23.61	22.53
Maintenance and depreciation	26.20	17.68	13.91	13.46	13.41
Net earnings	23.52	15.60	10.90	10.15	9.12
Per cent operation expense to telephone earnings	35.9	37.8	39.2	37.2	38.6
Per cent telephone expense to telephone earnings	71.0	72.8	74.8	75.1	77.1
Per cent maintenance and depreciation to average plant, supplies, etc	9.1	8.4	8.9	9.5	9.2
Per cent increase exchange stations[1]	15.7	26.5	24.5	11.8	10.8
Per cent increase miles exchange wire[1]	15.9	33.2	27.2	12.0	12.3
Per cent increase miles toll wire[1]	21.3	25.2	12.4	11.5	6.5
Average plant cost per exchange station (including exchange and toll construction)	$260.00	$199.00	$145.00	$142.00	$141.00
Average cost per mile of wire (toll) (including poles and conduits)	$81.00	$71.00	$62.00	$66.00	$68.00
Per cent gross telephone earnings to average plant	33.4	31.7	31.7	29.3	28.7
Per cent net profits to average capital stock	10.11	9.44	8.34	8.48	7.93
Per cent dividends to average capital stock	5.07	6.19	5.75	6.31	6.30

[1] Increase during year shown over previous year.

REPORT OF THE AMERICAN TELEPHONE & TELEGRAPH CO.

Earnings.—The net earnings of the American Telephone & Telegraph Co. for the year were $33,301,245.77, an increase of $1,368,031.28 over 1910. The interest charges were $5,567,980.30, and the dividends at the regular rate of 8 per cent were $22,169,449. 79. Of the balance, $5,563,815.68, there was carried to reserves $2,800,000 and to surplus $2,763,815.68.

No dividend on the stocks of the associated companies was increased during the year excepting the increase from 6 per cent to 7 per cent in the rate on the stock of the New England Telephone & Telegraph Co. made in the second quarter of the year.

During 1910 and 1911 over $23,000,000 of capital advances to associated companies were exchanged for stock of those companies. This exchange was for the most part in nondividend paying companies that the parent company had been obliged to finance and build up from the depressed condition resulting from causes which were prevalent in the early days of the business, companies in which there was only a small percentage of the stock outstanding. These companies either now are or soon will be upon a secure conservative, dividend-paying basis. The resulting decrease from this cause in the American Telephone & Telegraph Co. revenue is at the rate of over $825,000 per year, that amount additional remaining in the surplus of companies in which this company has about 95 per cent interest.

Issues of capital stock and bonds.—On June 20, 1911, the stockholders were given an opportunity to subscribe at par for new stock in the proportion of one new share for every five shares of record June 30, and it was provided that the payments in settlement of subscriptions might be made either in full November 1, 1911, or in four equal installments at the following dates: November 1, 1911; February 1, 1912; May 1, 1912; and August 1, 1912; or, in full on any installment date; adjustments of interest and dividends being made so that the net charges to be borne by the company will be at the rate of 4 per cent up to installment dates, and thereafter at the company's dividend rate.

Practically all of the $55,086,500 stock offered was subscribed for and $41,200,700 was paid for and issued under date of November 1, 1911. In addition, payments of $2,522,-209.52 on installments were received and are shown in the balance sheet under capital stock installments.

The conversion rate of the convertible bonds was reduced at July 1, 1911, by reason of the new stock offered to stockholders and under the terms of the trust indenture, from 133.7374 to 126.4391. At the close of business, December 31, 1911, $129,541,000 of the $150,000,000 convertible bonds sold had been handed in for conversion, leaving outstanding at that date $20,459,000, a reduction in 1911 of $18,482,000.

Due to the conversion of the bonds and the stock taken on subscriptions, there has been an increase of $55,091,900 in the outstanding share capital. The number of shareholders, 47,341, on December 31, 1911, shows an increase of 6,960 during the year, and increased to 49,011 on March 1, 1912. The distribution is general, there being 41,016 shareholders who hold less than 100 shares each, 5,971 who hold from 100 to 1,000 shares each, 324 who hold from 1,000 to 5,000 shares each and 30 who each hold 5,000 shares or more. The average number of shares held was 67. A majority of the company's stockholders are women. Less than 8 per cent of the stock was on December 31 in the names of brokers.

The remaining $17,300,000 of 4 per cent collateral trust bonds have been used during the year, together with other assets of the company, to carry out the policies of the company in the acquisition of independent or opposition telephone companies, and in the acquisition of minority interests in the associated companies, as a part of the plan for the rearrangement of their territories.

Of the $49,000,000 increase in the shares of our associated companies shown in the balance sheet, less than $1,500,000 represents new issues for current construction purposes. The balance was acquired by purchase or exchange, or was new stock received in payment for notes held by the company.

The revenues of the company will not be affected, except favorably, by these exchanges or purchases, as they were substantially all made on the basis of present revenues, while they give the company a larger interest, about 87 per cent, in the divisible surplus earnings of the associated companies, and it is upon their earnings that the whole prosperity of the company depends. The dividends from the shares of these companies constitute a large part of the revenue of the American Telephone & Telegraph Co.

The total outstanding capital stock and bonds of the American Telephone & Telegraph Co. at December 31, 1911, were as follows:

Capital stock	$318,427,500
4 per cent collateral trust bonds	78,000,000
4 per cent convertible bonds	20,459,000
Total	416,886,500

For the $318,427,500 capital stock, $339,633,235 has been paid into the treasury of the company; the $21,205,735 in excess of par value represents premiums. All dicsounts on the bond issues have been charged off. The outstanding capital obligations therefore represent over $21,200,000 more than their par value.

Legal.—The legal department reports that the relations of the company and its associated companies with the public service commissions of the several States have continued to be of a very satisfactory character. Our companies have cooperated with the commissions in the endeavor to provide the best possible service. There are now commissions with jurisdictions over telephone companies in 28 States. Some of the decisions of these commissions are illuminating, and support what we consider to be the soundest policy.

In a recent case before the board of public utility commissioners of the State of New Jersey that commission stated:

"Assuming that adequate regulation in the public interest is provided, this board avows its conviction that unified and exclusive control and operation of telephones within a given area is preferable to a competing telephone system with its inevitable disadvantages of divided service and duplicate cost."

The Nebraska commission has approved our plan for cooperating with the independent interests in giving universal service, and the legislature of Ohio and Michigan have passed laws providing for the consolidation and merger of competing telephone companies under proper regulation.

In the so-called Rate case, the Maryland commission stated that everyone sees at once that the rule of fairness requires that every consumer should pay for his own actual use, and it is not easy to find a reason that would justify a different rule in the case of telephone service. The commission thus sustained our position in regard to measured service in large cities as against flat rates.

The board of public utility commissioners of the State of New Jersey in the Camden Rate case decided that it is not practicable at all, or would involve undue and unnecessary delay to segregate and isolate services and cost within restricted municipal areas. The board is of the opinion that to reach a proper basis on which a reasonable return may be earned the entire property of the system of the telephone company inventoried will suffice. This decision is in line with our conception of a universal system and sustains our position that a basis of rates should not be confined to an exchange area.

We have not carried into the courts a large number of cases, but it has been our good fortune to be almost uniformly successful in those which have been submitted to their decision.

Engineering.—The year 1911 has, as usual, been an active one for the general engineering staff maintained at headquarters for the benefit of the associated companies throughout the United States. For every one of these companies a large number of important problems have been studied and solved and further substantial progress has been made in the improving and standardizing of apparatus and in the development of improved methods of rendering the telephone service to the public.

In improving the transmission of speech a most important work has been the development of methods whereby the loading coil invention can be applied to the heaviest gauge wires and whereby such wires, when equipped with loading coils, can be operated on the phantom principle. By this means telephone service is now successfully accomplished between New York and Denver and the transmission of speech between cities less far apart has been greatly improved. By the application of the phantom principle to such circuits the available facilities have been largely increased so that between the important telephone centers notable improvements in service have been accomplished.

In long underground cables improvements have also been made so that the phantom principle may be employed in them, and the range over which speech may be transmitted has been so far increased that when this type of cable is installed between Boston and Washington it will be possible to talk underground between those cities and all of the intermediate points, which would have been impossible under the previous state of the art.

Engineering supervision has been given to the testing and inspection of construction material for the associated companies, amounting in value to $20,000,000.

Fundamental plans have been made for the associated companies in 20 cities. These provide for the proper location of subways and central offices so as to insure the most efficient growth of the plant. The construction contemplated in these plans amounts to more than $100,000,000.

The extraordinary advance in the price of tin, which enters into the construction of underground cable sheaths, and of platinum, which enters into the construction of the apparatus, has been more than compensated for by our improvements in cable manufacture, whereby a small amount of antimony may be substituted for a larger amount of tin, and by our new methods of using platinum. Although less than 3 per cent of tin has been used in the cable sheaths the expense for tin has been $700,000 a year, and for platinum used in telephone apparatus the expense has been $550,000 a year. These figures have been cut about in half.

A study has been conducted looking to the more complete utilization of the existing plant of the associated companies, so that as far as possible increasing business could be met by improved methods of working instead of by new construction. By the use of these methods new plant construction amounting to upward of $5,000,000 is avoided.

In addition to the hundreds of special engineering problems which have been worked out for the various companies, nearly 200 bulletins on engineering subjects and general specifications have been issued to them.

In different parts of the country a large number of important central office installations have been planned. When completed the expenditure based upon these plans will amount to $10,000,000.

In cooperation with the insurance department of the company there has been furnished to the associated companies the latest information concerning fire prevention and the adoption of methods whereby most advantageous insurance rates have been obtained for them.

Interference from electric light and power wires has been studied during the year in connection with a number of national engineering bodies. Important results have been obtained and standard specifications adopted providing for the safe crossing of high tension wires and signaling wires and for their construction when the two classes of wires must come into proximity. Conducted upon a national basis, these results are applicable to all of the associated companies.

Some hundreds of new inventions have been examined, tested, reported upon, and developed, and by keeping in close touch with the associated companies valuable ideas originating in any of them have been promptly communicated to the others.

General engineering and scientific discoveries in this country and abroad have been carefully followed, and where containing possibilities of improvement in the telephone service or plant, the new ideas have been tested and the results made immediately available for each of the associated companies.

Rearrangement of territory.—There has been some misunderstanding in connection with the acquisition of the minority interests of certain associated companies. In every one of these companies the American Telephone & Telegraph Co. already owned a controlling interest; in fact, held about 70 per cent of the whole, which has been increased to over 95 per cent by the recent acquisitions. Each of the companies was an integral part of the Bell system. Each of the companies was connected with the others by the long-distance lines of the American Telephone & Telegraph Co., and each of the companies under license contract with that company.

The company is now in a position to carry out its policy of "rearrangement of territory," as outlined in previous reports, and without raising questions of conflicting interests, so to arrange the territory that it will conform to commercial and natural lines. In the few cases covering small areas not embraced in this control the working arrangements are harmonious and the operations in perfect accord with the whole system.

The ultimate object and the reasons for this rearrangement are briefly as follows:

Any telephonic connection must be continuous from any point of communication, as a center, to any point to be communicated with, even to the utmost speaking distance. To obtain continuous speaking circuits there must be uniformity of practice and equipment and perfect cooperation in "operation" over the whole circuit. Therefore, there can be no restrictive or interfering boundaries between exchanges of a telephone system, and any system should be coextensive with any territory naturally intercommunicating from national, geographical, or racial reasons.

To have this uniformity and cooperation there must be common interest, under common control, either through ownership of property, ownership of controlling interest, combination, or agreement; whichever way it is, it must be sufficiently strong to constitute practically one system, intercommunicating, interdependent, universal.

(See discussion of relations and object of rearrangement in previous reports, particularly 1909, 1910.)

So long as each State retains control of its intrastate affairs and its corporate creations, and so long as interstate traffic and interstate service corporations can not be detained by State boundaries, so long will some sort of State recognition of the corporations of other States or some corporate machinery be necessary in each State to bring all service corporations doing an interstate business under State control and operative conditions within each State.

Organization of the Bell system.—Under this rearrangement of territory the American Telephone & Telegraph Co., controlling the entire Bell system, will as it has in the past exercise the functions of a "centralized general administration." All questions of policy common to all, all common matters which may have an effect upon the system as a whole, will be settled by the central administration. As one administration will do for all what each would have to do for itself, it has the advantage of economy and will maintain uniformity.

For operating purposes there will be 8 or 10 divisions with boundaries determined by present commercial conditions, instead of a much larger number of divisions with boundaries fixed more or less accidentally or by other considerations prevailing 25 or 30 years ago. Each division whether operated directly or through corporate organizations will have a responsible local administration, supreme in the "intra-division" operations. Each division in turn will be divided into districts with a subordinate but responsible local administration, and in many cases these districts will be divided into subdistricts. In each district or subdistrict there will be a subordinate but responsible local representative who will in all local routine matters be to the public the representative of the whole system.

All lines of responsibility and suggestion will go up, from the local representatives to the central administration. All lines of authority down, from the central administration to the local chief.

Under the Bell organization each associated company or group of companies is now, and each division hereafter will become an autonomous whole, with its own local control and identity, and within the limits of the general policy and authority, absolute on matters pertaining to or which affect only that territory.

Such an organization avoids that general tendency in all combinations to concentrate too much, or to become unwieldy and unmanageable, and thus lose all the economical or effective operating advantages.

There are limits of active usefulness beyond which the physical or mental capacity of individuals will not extend.

The organization as constituted will be flexible enough to enable any rearrangement to be made of the whole or any part, in any way which may be found necessary or advantageous from reasons of policy or from business or legal reasons, without affecting the business.

Future financing may be done locally, by the divisions or districts, or it may be done by the central administration, or partly by each, as best will meet commercial or business conditions at the moment. It will be necessary only to consult expediency.

But the great advantage is that each division and each subdivision within wide limits is an autonomous whole; there is life and responsibility in the administration and operations of every separate division and subdivision—such life and responsibility as will carry the business along as an independent entity for almost indefinite periods under any possible conditions which may arise. With such conditions, nothing can happen which would be disastrous to the business, for whatever might happen would autonomously right itself, or be righted by the concerted action of this army of individuals, or by some individual of the army, now being trained to action and to take responsibility by having responsibility put upon them.

With such a body of men, educated in technicalities and theories, which, by practical experience, they have subordinated to usefulness, with a trained capacity for taking responsibility—steadily moving upwards—there will always be a body of fit men to choose from in any emergency.

Independent and opposition companies.—We have, wherever we could do so legally and upon satisfactory terms, and acting with the acquiescence and consent of the local public and local authorities, purchased, merged, or made connecting contracts with a large number of independent or opposition companies. Wherever these arrangements have been completed and put into operation there seems to be general satisfaction with the result.

Our policy in relation to independent companies was set forth in detail in the following announcement made early in the present year, but which has been in effect to a considerable extent for a long time:

"In order that the American Telephone & Telegraph Co. and its associated companies may follow the same policy with respect to maintining toll connections with independent companies, it seems wise to state just what that policy is in this regard and to advise the associated Bell companies and ask them to adopt the same for their guidance.

"First. The associated Bell companies will extend toll line connections to any point or to any company where opposition exchanges do not exist, and where the result of such toll line connections would be a reasonable return upon the investment involved in the connection.

"The terms and conditions for transmitting or receiving toll or long-distance messages at such points shall be fair and equitable and as favorable as the terms and contions extended to any other companies operating under similar conditions.

"Second. Should any associated Bell company acquire, by purchase of otherwise, any toll line which has connection with any independent exchange or toll line, all facilities enjoyed at the time of the acquisition by the independent exchanges or toll lines for sending or receiving messages shall be continued. When increased facilities shall be needed from time to time, such facilities shall be subject to future contracts which shall be made fair and equitable to both parties.

"Third. Should any associated Bell company acquire, by purchase or otherwise, any independent exchange property which has toll line connections, the associated Bell company will not cut off or disturb in any way such connections.

"Fourth. It is to be understood that all existing connecting contracts or arrangements between independent companies or between independent and Bell companies shall continue without interruption should there be any change in the ownership, thus preserving the status of the situation.

"Fifth. It is to be understood in all of the above cases that it is the wish and intention to preserve any facilities or connections which independent companies and their patrons may enjoy at the time the property of an independent company may be acquired, with such increase of the same facilities as may be necessary on account of future growth and extension of the business; but it is not the intention that by virtue of such acquisition the range of facilities of any independent company or of the patrons of any independent company shall be increased.

"Sixth. The associated Bell companies will not require connecting companies to use any special make of apparatus or equipment—the only requirement will be the use of such facilities and equipment as will give commercial service.

"Seventh. It is to be distinctly understood that this policy does not in any way contemplate physical connection between opposition exchanges, nor does it contemplate the interchange of messages between two or more exchanges located within the same town or community."

Statements are very freely made that whenever these combinations have been brought about rates have been increased to an unreasonable amount.

Rightly or wrongly—whether through ignorance or for other purposes—franchises for opposition exchanges were obtained on the promise of low rates and improved service, and capital was obtained on promises of large profits. These opposition exchanges were established as a rule in the cream of the territory and took in little or no unproductive territory, and built up no outside connections except where a profitable business could be obtained. The financial results are well known—few, if any, of the inducements held out were realized or promises made fulfilled. Increases in rates fixed in the franchise were applied for on the ground that without an increase the companies could not continue operation—many could not and did not continue.

In the face of these conditions, and excepting a few places where competitive conditions made it impossible, the Bell system has substantially maintained standard rates, averaging considerably higher than the opposition rates, and notwithstanding the higher average rate, the Bell gain in places where there was opposition was much greater than the opposition gain in stations.

Wherever these combinations have taken place the rates not standard have been made standard, and frequently no increases in rates took place, except such as were consequent upon the increase in the size of the exchange, and in no case have the rates even approximated the combined rates of the two exchanges.

Wherever these rates have been increased, it has been done by and with the consent of the subscribers to the exchanges, and with the direct authority or acquiescence of the public authorities.

It does seem as though through the open public knowledge of so many failures on the part of opposition telephone companies to give lower rates and better service with profit, and the open acknowledgment of the impossibility of doing this, there might be a cessation of the assertions so freely and so often made that the Bell system is making unreasonable dividends out of excessive profits, derived from exorbitant charges for service, particularly those assertions originating, as most of them do, at places in territory in which the service of the Bell system has been operated without any profit for years.

There is no way of getting the profits out of the company except through dividends and interest, as all surplus has been put back into the plant, and the average dividends

paid on the outstanding stock of the associated Bell companies for 1911 were 6.3 per cent, while the average profits were 7.93 per cent, as shown on previous pages. The correctness of these statements has been verified many times by the examinations made by official bodies of control and regulation.

The telephone-using public is willing to pay sufficient in the way of charges to maintain such a system as the Bell system, as against a cheaper but less efficient or less universal service, and the telephone-using public is willing that fair and reasonable dividends should be paid.

What possible good can come from these mistaken assertions of conditions is hard to understand, and why they should be made when it is so easy to ascertain the facts is even harder.

We repeat what we have said in substance in previous reports:

If any company gives good service, meets all reasonable demands of the public as to rates and service, does not earn more than sufficient to provide for the maintenance of its plant and reconstruction of wornout or obsolete plant, pays fair wages to its operative force and staff, pays only fair dividends upon the capital invested—if a company is doing only this, its rates and charges to the public can not be unreasonable—unless the position taken by a legislator in a certain State is to be indorsed by the public, which can hardly be the case.

This gentleman said: "If I found a telephone company had not been paying its stockholders anything, I should say the company was a little hungry to ask for 8 per cent."

The final decision in these matters now largely rests with bodies of control and regulation, and if control and regulation of public utilities are to stand, they can stand only because the results are of benefit to all concerned, and permanently beneficial results can not come from one-sided or partisan action. The public can not be benefited by destruction of the companies or by impairing the efficiency of the service rendered, while on the other hand too much latitude to the companies might only reproduce the causes from which all are now suffering.

Centers of business and of population, the collecting and distributing centers of commerce, exist for the convenience of the community as a whole. No community can remain prosperous if served by bankrupt or unprofitable public-service corporations.

"Sufficient" and "efficient" facilities for intercourse and intercommunication between the commercial centers and the territory contributory or dependent, make the most effective instrument of prosperity that can exist.

PUBLIC RELATIONS.

Our views on the relations between industrial or utility corporations and the public, particularly our own relations, are so simple and direct as to seem almost commonplace and to make reference to them seems like repetition. It is, however, only through repetition that we can be sure of a thorough understanding, and it is only by a thorough understanding that we can get that well-informed, intelligent public opinion that we desire.

We believe that our company has a most vital interest in and that our future success and prosperity depend upon the working out of the telephone and telegraph problem in a way that meets with the approval of the public as a whole.

We believe, and we think the public is fast coming to believe—

That telephone service to be perfect must be universal, intercommunicating, interdependent under one control, and that no isolated section can be considered independently of any other or of the whole system, and that rates must be so adjusted as to make it possible for everyone to be connected who will add to the value of the system to others.

That the highest commercial value of the telephone service depends on its completeness, on the extent and comprehensiveness of its possibilities of intercommunication not only between individuals but between aggregations of individuals, i. e., communities.

We believe that we are working this problem out on the broad lines of the greatest benefit to the public, and that this is evidenced by the fact that our standards and lines of organization and operation are the standards the world over.

As a corrollary to this—we recognize a "responsibility" and "accountability" to the public on our part, which is something different from and something more than the obligation of other public-service companies not so closely interwoven with the daily life of the whole community.

But in admitting this responsibility and accountability on our part, we must insist that the measure of it shall not be determined by impossible standards, that equity and fairness shall be, and personal and political exigencies or partisan advantages shall not be, the basis of judgments and requirements.

We can not conceive of anything more unfair than was the spirit which actuated a minority—small, it is to be hoped—of a political club which stands for high purposes, when it was proposed to pass a resolution recommending "such action with regard to telephone rates and service as shall strengthen the party before the people of this State."

The same spirit actuates bodies or committees undertaking to legislate on service corporations when report after report of independent experts employed by those bodies to examine and report conditions on which to base action is objected to and rejected because the reports do not conform to their preconceived ideas of political desires or interests, and at the same time these bodies openly demand a report that does conform to their ideas.

This is only illustrative of the tendency on the part of individuals or temporary bodies, without any, or at the best with a very superficial or partisan, knowledge, often prejudiced by their own interests, to attempt to pass on complex business questions.

In our relations with permanent bodies of control and regulation during the past year, we have had so little in the way of difference or difficulty as to be almost negligible. In presenting or defending our cases we have tried to be governed by equity to ourselves and consideration to the public in every way, and have given such full reasons and such full facts to substantiate our cases that the only particular differences were those bound to exist between a public commission and a corporation, each trying to do what was best from its point of view.

Wherever we have had serious difficulties with representative bodies or the public, it has almost always been because those representing the public or legislative bodies were of temporary nature.

In all such cases we have presented our side with the same care as to the rights of ourselves and consideration for the public as in cases before permanent bodies. As a result, our position and claims have been conceded and sustained, or if not, and it has been necessary to resort to the courts, we have in most instances been satisfactorily vindicated.

This only emphasizes the fact that all regulation and control of corporations serving the public should be by permanent bodies, judicial in their attitude, equitable in their purposes and actions, governed by a few simple laws based on the rights of the individual, the corporation, and the community, and applied after the fullest examination and consideration.

The opinions and the facts that controlled or influenced the judgment should be matters of record, with the constitutional right of appeal in the corporation.

Temporary committees of bodies legislative in their functions, though trying to assume a judicial attitude, do act from an entirely legislative and sometimes political standpoint. Their decisions are frequently contradictory, irreconcilable and impossible, even when these committees are composed of fairly disposed men. Nor is this any reflection upon such committees. Their inability arsises from the manner of their selection, the temporary nature and selfish interests of their positions, the engrossing nature of their many other duties, and the lack of time to familiarize themselves with questions involving years of practice and experience.

Government ownership.—The discussion of the Government ownership of the wire companies, is not likely to become anything more than academic, at least for the present.

Even if the final conclusion should favor Government purchase of all wire plants, there would be no unfavorable consequences to the shareholders of the wire companies other than the obligatory liquidation. Any possible award for the property which the security holders would be obliged to accept would give them better than current prices for their securities.

It is, however, highly desirable that if there is to be discussion, it should be on the right lines and that whatever be the conclusion it should be reached after a full consideration of conditions as they exist, and of the practical experience of other countries, and not be based upon theories, expectations, prophecies, promises with no power to fulfill, or wrong ideas of existing conditions.

It is only in comparatively recent years that the present prevailing theories of mail service have been evolved, and the free interchange of communication, of intelligence, ideas, and personal information has become a fundamental necessity to our modern civilization, with its scattered and widespread family and racial interests; it is now established as one of the obligations of modern government. Expense is the last consideration, while uniformity, extent of service, absence of discrimination, and equal facilities for everyone and every place are over and above every other consideration. No matter how much the costs in any particular service may vary, charges for the same classes of service must be uniform, moderate, and within reach of all. Everyone and every place must be on a plane of equality regardless of varying conditions.

The use of the mail service is so widespread and general, and its availability of such national importance, that whether it should be at the expense of the general revenue of the Nation or of the specific revenue of the service is immaterial; even economy and efficiency are secondary to the inviolability, the freedom from espionage, from suspicion of private gain or benefit, from restrictions tending to limit its use.

It is a service that must be maintained by the whole for the common benefit of the whole.

Quite a different proposition would be the Government operation of the telegraph. Instantaneous and immediate transmission of communications is as yet a convenience or luxury, although under modern methods of business and commerce it is an economical alternative to the cheaper mail service in business operations. The use of the telegraph may be a popular convenience, but it is not a necessity and is still confined to the comparatively few, and for that reason should be at the cost of the few that find benefit and profit in that use. The ratio of the use of the mails to the telegraph is nearly 100 to 1, and less than 5 per cent of the whole population use the telegraph.

The Post Office Department is an organization for the operation of the mail service over and through transportation facilities under private ownership and operation. The mails are taken from and delivered at the post office by the transportation companies, and dispatched on trains over which the Post Office Department has no control or concern whatever. The Post Office Department has its own problems peculiar to its service, many of them intricate and vexatious, but none such as are connected with the operations of a transportation company. There is no capital investment for transportation plant and relatively little for equipment. In the few instances in other countries where there is Government ownership of transportation facilities, it is not because of or on account of the mail service.

Government operation of the telegraph would necessarily require the ownership, maintenance, and operation of the transmission facilities and equipment, as well as the solution of many complex problems incident thereto, including that of profit and loss, all new to our form of Government. Hundreds of millions must be invested in purchase or reproduction of facilities, all the charges on which, together with other costs, must be met out of the revenue from the service or become a charge on the general public revenue—all for the benefit of the comparatively few who would directly or indirectly profit by the use of the service.

The question of success or failure in any enterprise rests almost entirely with the organization. To create any new organization of such magnitude would be most difficult under favorable conditions, but the conditions which must control under Government ownership would make doubtful the creation of an efficient and economical organization, or the profitable operation of a business which even under private operation has such a small margin of profit.

If the telegraph could take the place of the mails in popular use, all considerations other than public convenience might be brushed aside, but this it can never do; the great part of ordinary correspondence must be secret, it must be the written personal communication that is transmitted. The correspondence must not be limited in length or restricted in vocabularly, and in the ordinary affairs of life the time of transmission is relatively unimportant. The telegram may be used as an alternative but never as a substitute for the mails in the uses peculiar to them.

Immediate or instantaneous transmission of communication will always be relatively expensive, in that transmission facilities must be adequate to the maximum requirements at any time, with idle, unused facilities most of the time as a consequence. Overloads can only be taken care of by delay, which takes away all there is of value in immediate transmission.

The only possible way in which a telegraph service intermediate in value and cost between the mail and the telegraph can be given is by maintaining rates on instantaneous business at a point which will meet the entire fixed charges of the plant, in addition to the other costs of that particular service. All who make use of such service can well afford such charges; dispatch and efficiency are the only considerations. The idle intervals can then be employed for particular services at popular rates, based on operating costs and a small margin of profit.

The inevitable tendency under Government ownership toward reduction of rates and uniform charges for all classes of service would be destructive of profit in operation, and would make possible any popular services only at the cost of the general revenue.

In the arguments and prophecies that are being used in support of Government ownership history is but repeating itself. The same undervaluation of existing plants, the same exaggeration of the profits, the same optimistic and exaggerated statements of what would be the results of Government operation that were made in favor of Government ownership in other countries are now being made.

The facts are that there is hardly a telegraph or telephone system in the world now operated by any government which shows a profit, even under accounting methods employed, and not one that would not show a deficit under accounting methods obligatory upon private enterprise. For authority, see any department report of any Government telegraph system.

Another consideration, much misunderstood and often misstated, is the supposed superiority and cheapness of service in other countries.

Taking the kind and quality of service, the extent of territory covered, and the wages to employees, there is no service in the world cheaper than the telegraph and telephone service of the United States. For authority, see statements made by departmental heads and reports of commissions of the various Governments of Europe, and more recently of Manitoba, and the experience of travelers and business men the world over, and the statement of the postmaster general of Great Britain who said in Parliament that if he could have the charges made in the United States he could give as good service.

There is not a single instance of telegraph or telephone companies operated by private corporations in competition with Government operation, where the private service is not better than the Government and profitable, against unprofitable Government operation, if untrammelled by Government interference.

TELEPHONE AND TELEGRAPH.

The inter-operations of the telegraph and telephone systems are improving rapidly. The collection and delivery of telegraph messages by telephone is becoming popular. Telegraph facilities have been largely extended, and will soon be much further extended by agency telegraph offices established at telephone toll stations, and by the connection of the telephone system with telegraph "all-night" offices. All these innovations have been of convenience and advantage, and in case of emergency a great benefit, to the public, but they have not as yet been productive of economy in operation or of profit.

The Western Union system is to the telegraph situation what the Bell system is to the telephone situation, in that each tries to give a comprehensive universal service, but the comparison ends there.

The Western Union has over 25,000 offices in over 21,000 places; and in addition many thousand agency offices at the toll stations of the Bell system. From less than 2,000 of the 21,000 places, with an aggregate population of about 40,000,000, over 90 per cent of its entire revenue is obtained. Nearly 17,000 of the 21,000 places have an average revenue of but slightly above $10 a month with a maximum of $50 a month. Some joint operating arrangement, generally with the railroad telegraph service, has been made for these and many other places where the revenue is insufficient to maintain an exclusive Western Union office. The increasing demand of the railroad telegraph service upon its operators, and because their first duty is to the railroad service, places the commercial telegraph service in a secondary place, which, with the best of intentions, is not conducive either to promptness or efficiency.

The Bell Telephone system has scattered over the whole territory exchanges or toll-line centers from which radiate subscribers' circuits and branch toll-line circuits. These centers are connected with each other by toll or long-distance circuits and constitute the telephone system. The toll circuits of the telephone system reach 70,000 places. At most of these places and upon substantially all of these branch toll circuits, and on many circuits connecting into the intermediate stations on trunk lines, there is not enough business to occupy fully either operators or wire facilities. Were it not for the indirect advantage to the whole system few, if any, of them would have been established. While the telephone can not be used interchangeably with the telegraph instruments in the transmission of messages over busy circuits by busy operatives, the "not-busy" operatives and circuits could be used for telephone and telegraph service "alternately" instead of "simultaneously," as there is not enough business to justify such circuits being "composited," i. e., arranged for simultaneous use of telegraph and telephone. The joint use of such lines and operatives would be a source of economy. At busy offices and on busy circuits the circuits could be "composited" for the simultaneous use for telegraph and telephone purposes. Each service would require its distinct operating force and its distinct offices, as the services rendered by the telegraph and the telephone are functionally and fundamentally different, although both use wire circuits. The telephone makes up a circuit and places it at the use of the customers, who do the communicating; i. e., it leases its circuits to others for personal communication. The telegraph by its own operators performs all the services of collecting, transmitting, and delivering messages; i. e., it transmits over its circuits, for others, personal communications.

The great economy and advantage would come from the "compositing" or simultaneous use of one system of circuits for the two services, eliminating entirely one of the

wire systems. The advance in the state of the art of "compositing" lines for joint use of the telephone and telegraph has been very marked in the very recent past.

The accompanying diagram illustrates a small section each of the telephone and the telegraph system. It is self-explanatory.

The diagram shows that the existing wire mileage of the present telephone toll circuits and telegraph plants, brought up to standard construction with some provision for deficiencies or extensions, if "composited" or used jointly, would for all practical purposes be the equivalent of two plants each of the same mileage, one for telephone and one for telegraph; or to put it another way: The wire mileage necessary to give the same service need be about half the combined wire mileage of the two systems separately operated as now.

The annual gross revenue from either a telephone or a telegraph system should be approximately 33 per cent of the total cost of or the investment in plant. If in two systems of equal size one plant were eliminated and both services were performed over the other, the percentage of joint revenue to plant would be substantially doubled, or 65 per cent. To put it in another way: The maintenance of a wire plant costs about 30 per cent of the annual gross revenue from that plant. The simultaneous use of a plant for both purposes would mean maintenance of one wire system against the doubled revenue from both services, or a decrease in maintenance alone of about 15 per cent of the gross revenue. In addition to these savings there would be the savings of the capital charges and of taxes on plant which would be made unnecessary. This brings within the realm of possibility a reduction of from 20 per cent to 25 per cent in the gross charges or gross revenue without affecting the profits of the business.

In order to avoid confusion, it must be distinctly borne in mind that the telephone service referred to here is the toll or long-distance service and not the circuits of the exchange service which could not be used for any other purpose. This toll or long-distance service is so intimately interwoven and interdependent both in operation and use with the telephone exchange service that it could not be separated, but the operation of the toll circuits in connection with the exchange circuits would not interfere with their use for telegraph purposes by a regularly organized telegraph staff.

These are the possibilities, fraught with all sorts of advantage to the public. Some of them are so clearly without the "restrictions" of business operation that they can be put in operation as fast as the physical changes can be made in the plant, but those of the greatest advantage prudence would dictate postponing until after these business restrictions are made clearer or more definitely interpreted.

For the directors:

THEODORE N. VAIL, *President.*

Bell telephone system in the United States.

CONDENSED STATISTICS.

	Dec. 31, 1895.	Dec. 31, 1900.	Dec. 31, 1905.	Dec. 31, 1910.	Dec. 31, 1911.	Increase, 1911.
Miles of exchange pole lines	25,330	30,451	67,698	120,175	131,379	11,204
Miles of toll pole lines	52,873	101,087	145,535	162,702	163,351	649
Total miles of pole lines	78,203	131,538	213,233	282,877	294,730	11,853
Miles of underground wire	184,515	705,269	2,345,742	5,992,303	6,831,667	839,364
Miles of submarine wire	2,028	4,203	9,373	24,636	26,936	2,300
Miles of aerial wire	488,872	1,252,329	3,424,803	5,625,273	6,074,012	448,739
Total miles of wire	675,415	1,961,801	5,779,918	11,642,212	12,932,615	1,290,403
Comprising toll wire	215,687	607,599	1,265,236	1,963,994	2,060,514	96,520
Comprising exchange wire	459,728	1,354,202	4,514,682	9,678,218	10,872,101	1,193,883
Total	675,415	1,961,801	5,779,918	11,642,212	12,932,615	1,290,403
Total exchange circuits	237,837	508,262	1,135,449	2,082,960	2,306,360	223,400
Number of central offices	1,613	2,775	4,532	4,933	5,014	81
Number of Bell stations	281,695	800,880	2,241,367	4,030,668	4,474,171	443,503
Number of Bell connected stations [1]	27,807	55,031	287,348	1,852,051	2,158,454	306,403
Total stations	309,502	855,911	2,528,715	5,882,719	6,632,625	749,906
Number of employees	14,517	37,067	89,661	120,311	128,439	8,128
Number of connecting companies, lines, and systems	.....	.....	.....	17,845	21,454	3,609
Exchange connections daily	2,351,420	5,668,986	13,543,468	21,681,471	23,483,770	1,802,299
Toll connections daily	51,123	148,528	368,083	602,539	644,918	42,379

[1] Includes private-line stations.

Bell telephone system in the United States—Continued.

COMBINED BALANCE SHEETS AT FIVE-YEAR INTERVALS, 1885-1911.

[All duplications between companies excluded.]

	Dec. 31, 1885.	Dec. 31, 1890.	Dec. 31, 1895.	Dec. 31, 1900.	Dec. 31, 1905.	Dec. 31, 1910.	Dec. 31, 1911.
Assets:							
Contracts and licenses	$16,732,100	$18,925,700	$20,005,300	$14,794,300	$13,313,400	$2,943,381	$2,943,381
Telephone plant	38,618,600	58,512,400	87,858,500	180,699,800	368,065,300	610,999,964	666,660,702
Supplies, tools, etc	348,500	1,021,800	1,810,000	6,464,400	11,069,500	20,987,551	20,749,568
Receivables	1,450,900	1,761,600	3,746,600	13,644,000	26,220,800	26,077,802	32,916,127
Cash	1,792,600	1,183,300	2,484,100	3,223,000	11,005,900	27,548,933	41,878,140
Stocks and bonds	1,138,800	2,697,400	4,480,500	11,400,400	23,041,200	64,766,089	66,777,231
Total	60,081,500	84,102,200	120,385,000	230,225,900	452,716,100	753,323,720	831,925,149
Liabilities:							
Capital stock	38,229,200	43,792,800	57,462,700	130,006,900	238,531,100	344,645,430	379,727,832
Funded debts	367,400	6,473,100	10,074,100	44,137,900	93,079,500	224,791,696	241,032,822
Bills payable	2,618,900	1,323,000	2,000,000	7,000,000	35,000,000	42,566,943	41,198,431
Accounts payable		3,301,100	6,138,000	13,583,300	22,407,500	21,721,125	23,382,438
Total outstanding obligations	41,215,500	54,890,000	75,674,800	194,728,100	389,018,100	633,725,194	685,341,523
Surplus and reserves	18,866,000	29,212,200	44,710,200	35,497,800	63,698,000	119,598,526	146,583,626
Total	60,081,500	84,102,200	120,385,000	230,225,900	452,716,100	753,323,720	831,925,149

COMPARATIVE EARNINGS AT FIVE-YEAR INTERVALS, 1885-1910.

[All duplications between companies excluded.]

	1885	1890	1895	1900	1905	1910	1911
Gross earnings	$10,033,600	$16,212,100	$24,197,200	$46,385,600	$97,500,100	$165,612,881	$179,477,998
Expenses	5,124,300	9,067,600	15,488,400	30,632,400	66,189,400	114,618,473	127,891,701
Net earnings	4,909,300	7,144,500	8,708,800	15,753,200	31,310,700	50,994,408	51,586,297
Interest	27,700	278,700	655,500	2,389,600	5,836,300	11,556,864	13,610,860
Balance	4,881,600	6,865,800	8,053,300	13,363,600	25,474,400	39,437,544	37,975,437
Dividends	3,107,200	4,101,300	5,066,900	7,893,500	15,817,500	25,160,786	25,966,876
Surplus earnings	1,774,400	2,764,500	2,986,400	5,470,100	9,656,900	14,276,758	12,008,561

American Telephone & Telegraph Co. balance sheet Dec. 31, 1911.

ASSETS.

Stocks of associated companies	$405,859,400.00	
Bonds of associated companies	1,689,000.00	
Capital advances to associated companies	52,737,803.83	
		$460,286,203.83
Telephones	12,334,255.96	
Real estate	2,188,239.85	
Long-distance telephone plant	48,155,893.26	
		62,678,389.07
Cash and deposits	29,635,036.24	
Short-term notes	175,000.00	
Temporary cash loans	1,107,000.00	
		30,917,036.24
Special demand notes		6,681,613.71
Current accounts receivable		4,959,946.10
		565,523,188.95

LIABILITIES.

Capital stock	$318,427,500.00	
Capital stock installments	2,522,209.52	
		$320,949,709.52
4 per cent collateral trust bonds, 1929	78,000,000.00	
4 per cent convertible bonds, 1936	20,459,000.00	
5 per cent coupon notes, 1907	5,000.00	
5 per cent coupon notes, 1910	4,000.00	
Other notes payable	10,600,000.00	
Indebtedness to Western Union Telegraph Co. for New York Telephone Co. stock payable 1912 to 1915	16,500,000.00	
Undertaking to deliver ($12,617,760) 5 per cent 25-year bonds of Cumberland Tel. & Tel. Co. in exchange for 78,861 shares Cumberland stock	12,617,760.00	
		138,185,760.00
Dividend payable Jan. 15	6,368,550.00	
Dividend adjustments on new stock	328,273.48	
Interest and taxes accrued, but not due	2,132,324.49	
Current accounts payable	748,624.76	
Reserve for unearned revenue	2,345.99	
		9,580,118.72
Depreciation reserve	40,383,161.80	
Surplus	56,424,438.91	
		96,807,600.71
		565,523,188.95

Comparative statement of earnings and expenses for the years 1910 and 1911.

	1910	1911
Earnings:		
Dividends	$19,205,494.35	$20,844,398.53
Interest and other revenue from associated companies	10,838,442.84	10,462,786.70
Telephone traffic (net)	4,893,513.39	4,979,231.92
Real estate	95,119.69	92,854.41
Other sources	325,758.44	590,958.21
Total	35,358,328.71	36,970,229.77
Expenses	3,425,114.22	3,668,984.00
Net earnings	31,933,214.49	33,301,245.77
Deduct interest	5,077,321.33	5,567,980.30
Balance	26,855,893.16	27,733,265.47
Dividends paid	20,776,822.12	22,169,449.79
Balance	6,079,071.04	5,563,815.68
Carried to reserves	3,000,000.00	2,800,000.00
Carried to surplus	3,079,071.04	2,763,815.68
	6,079,071.04	5,563,815.68

BOSTON, *February 28, 1912.*

I have examined the accounts of the treasurer and comptroller of the American Telephone & Telegraph Co. covering the year ending December 31, 1911, and have to report as follows:

I have determined the cash in hand and in the banks and trust companies, and find the amount, after allowing for outstanding checks, to agree with the balance of cash on that date.

I have seen approved and receipted vouchers for all disbursements, and have verified the record of cash receipts.

I have seen that all notes and stock certificates owned by the company are in hand and correctly entered upon the books.

I have found all cashbook and journal entries duly posted to the ledger and the footings correct, and have proved the balance sheet.

I hereby certify that in all my investigations, as above recited, I have found everything correct.

HENRY A. PIPER.

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